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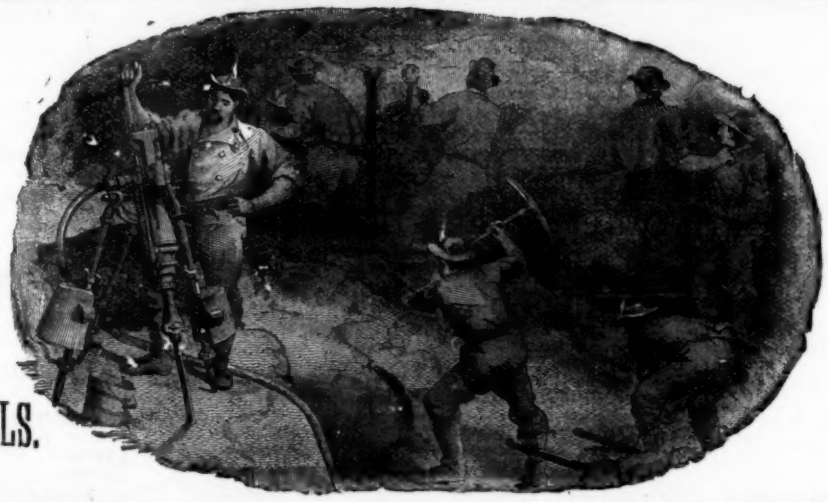

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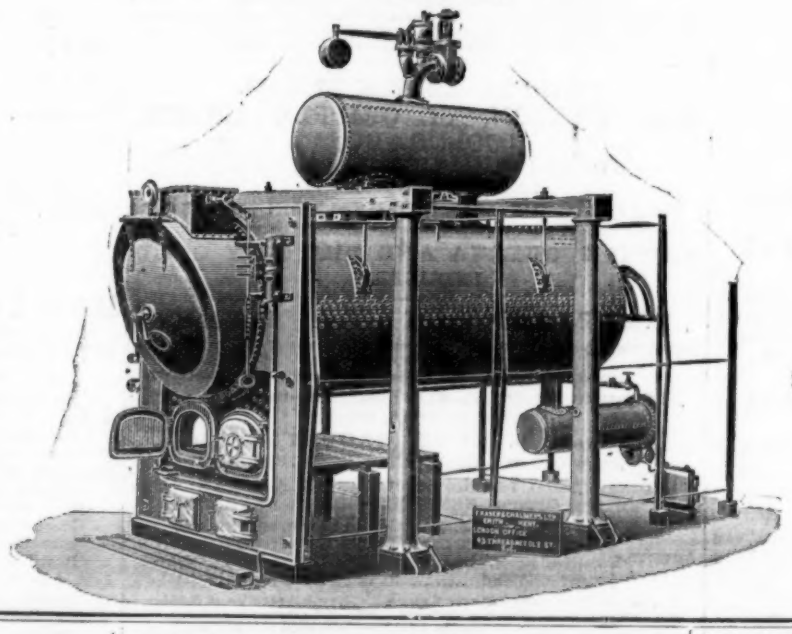

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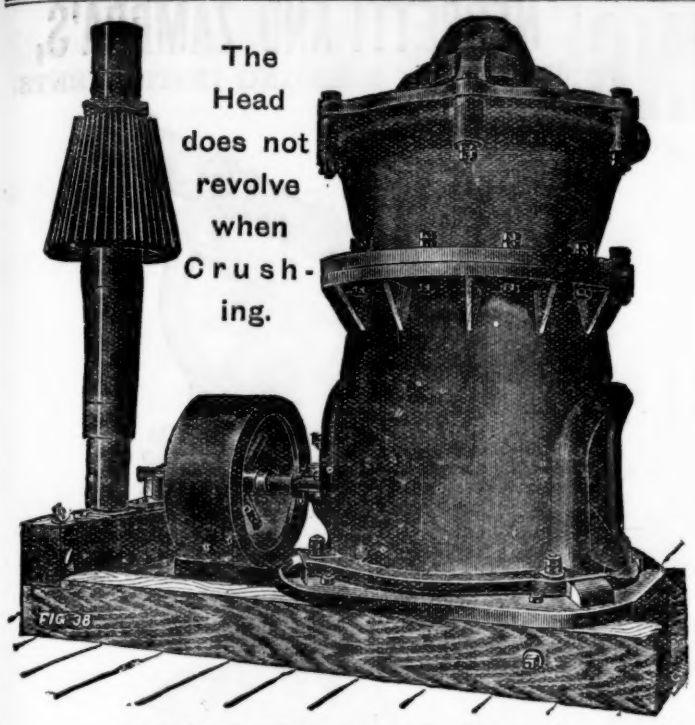

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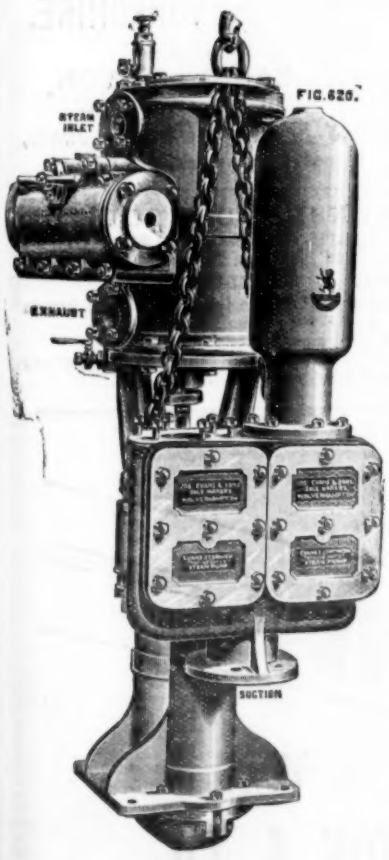

GRIFF" PATTERN "CORNISH" SINKING PUMP.

SINKING PUMPS FOR MINES.

NO TAPPETS, LEVERS, OR EXTRANEOUS GEAR.

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London Office
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DEPOTS:
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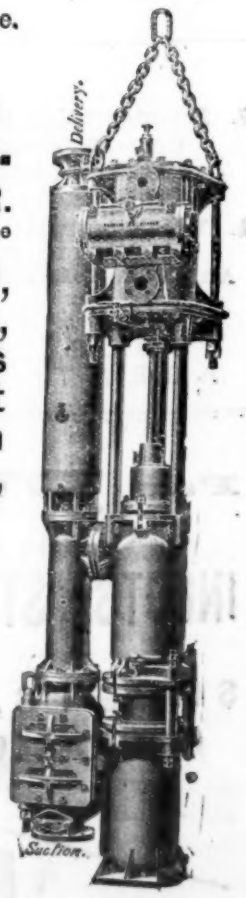
JOHANNESBURG.
Etc.

FIG. 875, "FLUOMETER" PATENT STEAM VACUUM PUMP.

The "CORNISH" STEAM PUMP.
The "DUPLEX" STEAM PUMP.
The "RAM" STEAM PUMP.
The "RELIABLE" STEAM PUMP.
"DONKEY" PUMPS.
"HORSE" PUMPS.
"POWER" PUMPS.
AIR COMPRESSORS,
&c.

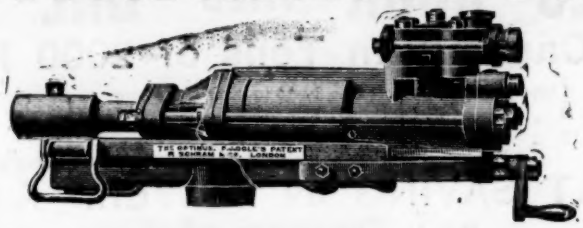


"STRAIGHT-LINE" PATTERN SINKING PUMP.

CULWELL WORKS,

WOLVERHAMPTON.

REVOLUTION IN ROCK DRILLING



"OPTIMUS" COMPOUND ROCK DRILL.

(P J. OGLE'S PATENT.)

Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.

AIR COMPRESSORS,

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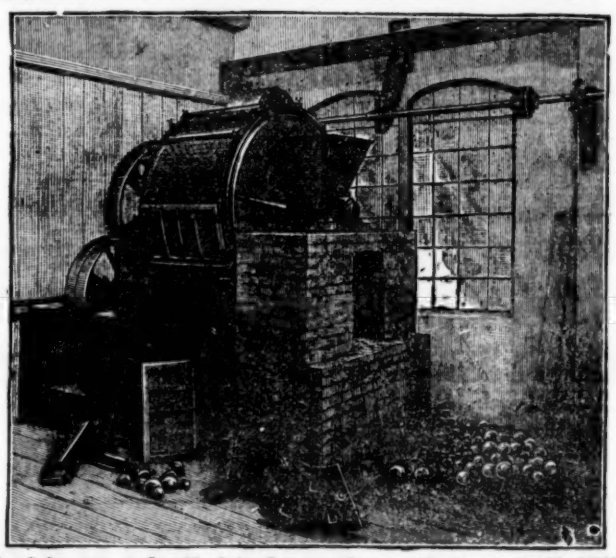
SILVER EXTRACTION MACHINERY.



STAMP BATTERIES.

Patent Ball Mills.

(Dry Crushers).

ORE-CONCENTRATION

DRY SEPARATOR

OF

PAPE-HENNEBERG.

3. **Disintegrating Machinery of all kinds, such as Patent Ball Mills for Ores, Quartz, Cement, Basic Slag Grinding, &c. Excelsior Mills for Food Products, also for Tanneries, Chemical Factories, Sugar Factories, &c. Stone Breakers, Roller Mills, Crushers, &c., &c., Runners.**
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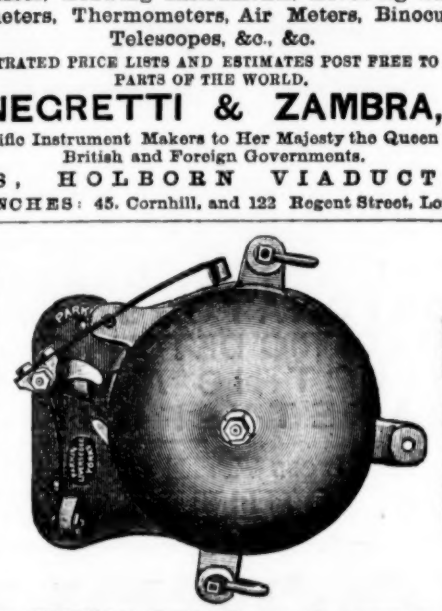

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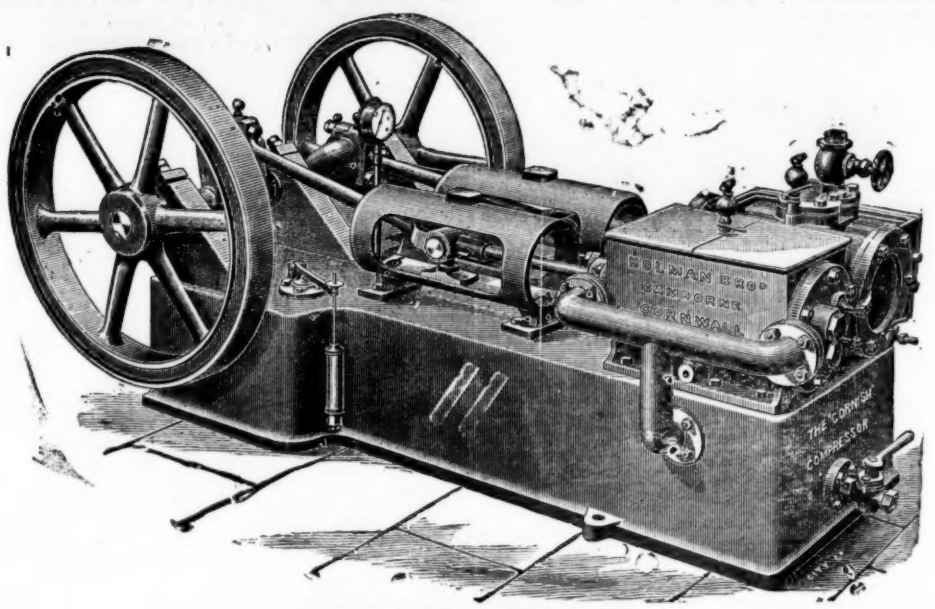

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS**, equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

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CARDIFF, JOHANNESBURG, CALCUTTA.

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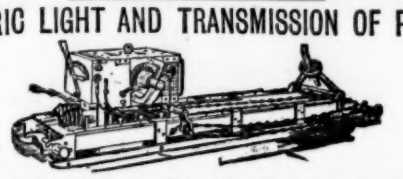

Jeffrey Machines for Undercutting Coal,
WORKED EITHER BY COMPRESSED AIR OR ELECTRICITY.
OVER 600 IN DAILY USE.

ELECTRIC
BLASTING APPARATUS.
HIGH OR LOW TENSION
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Electric Signals and Telephones.

MINING AND
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MINERS' SAFETY LAMPS.
ALL PARTS INTERCHANGEABLE.

CATALOGUES UPON APPLICATION.
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SEC. B. ELECTRICAL PLANT AND STORES.

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In Aluminium and Silver. Price £5 post free to any part of the United Kingdom or the Colonies.
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AWARDS: CRYSTAL PALACE, 1890; TASMANIA, 1891; KIMBERLEY, 1892.

CONCENTRATION.

The Clarkson-Stanfield Ore Reduction Co. (Limited).

In the CLARKSON-STANFIELD process of Concentrating Refractory and Complex Ores no water is required; dust is reduced to a minimum; the loss of Mineral through water-borne Slimes is obviated.

OUTPUT ½ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

CONCENTRATOR TO BE SEEN IN OPERATION AT THE COMPANY'S ONLY ADDRESS,

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The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—The owners of the Carndochan Mine, near Bala, North Wales, will, by arrangement, show their CLARKSON-STANFIELD plant working on a Refractory Low Grade Gold Ore.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Diorite King Gold Mines (W.A.) (Limited).—Registered June 2 by Readman, Van Praagh, and Sims, 23, Old Broad Street, E.C. Capital £ 50,000, in £1 shares. Objects: Primarily to adopt and carry into effect a certain unstalled agreement; to acquire any mines, mineral lands, &c., in Western Australia; to develop, deal with, work, and turn to account same in such manner as the company shall see fit; and, further, to acquire any other mines, mining, water, and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, &c., to develop and turn to account the same in such manner as the company shall see fit; and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. To construct, maintain, and work rail and tram roads, piers, wharves, docks, warehouses, &c., to develop the resources of such lands, estates, &c, as may from time to time be acquired by the company by clearing, draining, farming, planting, and building thereon as builders and contractors, farmers and graziers, stock raisers, shipowners, storekeepers, &c.

Australian Alliance Mining and Finance Company (Limited).—Registered June 3 by Clarke, Rawlins, and Co., 68, Gresham House, E.C. Capital £150,000, in shares of £1 each, 25,000 of which are deferred. Objects: To adopt and carry into effect an agreement expressed to have been made between David Marks of the first part, and this company of the other part, to carry on, participate in, or assist any financial, commercial, manufacturing and other undertakings, and to carry on the business usually carried on by financiers, company promoters, bankers, underwriters, concessionaires, contractors for public and other works, and capitalists, merchants, &c.; and further, to acquire any mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, alluvial ground, &c., in any part of the world; to deal with the same in such manner as the company shall deem expedient, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. To construct, maintain, and work rail and tram roads, telephone system, wharves, docks, piers, warehouses, gas, water, and hydraulic works; to develop the resources of such lands, estates, &c., as may from time to time be acquired by the company, by clearing, draining, irrigating, planting, or building thereon; to erect and maintain mills and other machinery; and to carry on in all or any of the irrespective branches the businesses of farmers and graziers, builders and contractors, stock raisers, shipowners, storekeepers, &c. The first directors—of whom there shall be not less than three nor more than six—are D. Marks, A. H. Marker, and Dr. A. W. Exstan. Qualification, £500 shares. Remuneration, £100 per annum each.

Hannay's Virginia Gold Mining and Development Company (Limited).—Registered May 28 by Francis and Johnson, 28, Austin Friars, E.C. Capital £100,000, in shares of 5s. each. Objects: To adopt and carry into effect an agreement expressed to be made between the New Virginia Transvaal Gold Mines (Limited) of the first part, and this company of the other part, for the acquisition, by purchase or otherwise, of the business of the said company; and to carry on the business of gold mining, &c., in West Australia and South Africa; and further to acquire any other mines, mining, water, and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, &c.; to develop and turn to account the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. To construct, maintain, and work rail and tram roads, to employ and despatch prospecting and exploring expeditions, and to develop the resources of such lands, farms, estates, and other property as may from time to time be acquired by the company by clearing, draining, farming, &c.

New Zealand Consolidated (Limited).—Registered May 29 by Ingle, Holmes, and Sons, 20, Threadneedle Street, E.C. Capital £250,000, in shares of £1 each, of which 300 are deferred shares. Objects: To acquire mines, mining rights, &c., in New Zealand; to develop, work, and turn to account the same in such manner as the company shall see fit; and, further, to acquire any gold or other mines, mining, water, or other rights, concessions, leases, grants, claims, metalliferous land, mineral deposits, alluvial grounds, &c.; and to carry on, in all or any of their respective branches, the businesses of miners, millers, smelters, metallurgists, &c.; to erect and maintain mills and other mining machinery; to construct and work rail and tram roads, piers, wharves, docks, warehouses, &c.; to employ and dispatch exploring and prospecting expeditions; to develop the resources of such lands, estates, and other property, as may from time be acquired by the company, by clearing, draining, irrigating, farming, planting, and building thereon; to lay out towns and villages, and to promote immigration thereto; as builders and contractors, engineers, stock raisers, farmers and graziers, shipowners, storekeepers, &c. The first directors—of whom there shall be not less than two nor more than five—are to be elected by the signatories. Qualification £250. Remuneration £300 per annum, and percentage of the profits, divisible.

British Colonial Mining Corporation (Limited).—Registered June 4 by Watson and Watson, 101, Leadenhall Street, E.C. Capital £150,000 in shares of £1 each, of which 5000 are founders. Objects: To enter into, institute, carry on, assist or participate in financial, mercantile, commercial, industrial, manufacturing, or other similar businesses, works, or contracts, and to undertake and carry on any business, transaction, or operation usually undertaken by financiers, promoters of companies, underwriters, bankers, contractors, concessionaires, money lenders, capitalists, scrivenors, &c.; and further to acquire any mines, mining, water, or other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, alluvial ground, &c., in any part of the world; to deal with the same in such manner as the company shall deem expedient, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches; to construct, maintain, and work rail and tram roads, telegraph and telephone systems, wharves, docks, piers, warehouses, gas, water, and hydraulic works; to develop the resources of such lands, estates, &c., as may from time to time be acquired by the company by clearing, draining, irrigating, planting, or building, thereon; to erect and maintain mills and other machinery; to carry on in all or any of their respective branches the businesses of farmers and graziers, builders and contractors, stock raisers, shipowners, storekeepers, &c. The first directors—of whom there shall be not less than two nor more than seven—are to be elected by the signatories. Qualification, 200 shares. No remuneration until after payment of 20 per cent. dividend upon the ordinary shares; then as agreed upon by the directors or subscribers. Registered office, 58, Lombard Street, E.C.

Hurst's Mines (Limited).—Registered June 3 by Hay's Schmettau and Ancrum, 31, Abchurch Lane, E.C. Capital £50,000, in shares of £1 each. Objects: To acquire any mines, mining, water, and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, alluvial ground, &c., in any part of the world, to deal with the same in such manner as the company shall deem expedient, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. To construct, maintain, and work rail and tram roads, telegraph and telephone systems, wharves, piers, docks, warehouses, gas, water, and hydraulic works; to develop the resources of such lands, estates, &c., as may from time to time be acquired by the company, by clearing, draining, irrigating, planting, or building thereon; to erect and maintain mills and other machinery; to carry on in all or any of their respective branches the businesses of farmers and graziers, builders and contractors, stock raisers, shipowners, storekeepers, &c. The first directors—of whom there shall be not less than two nor more than seven—are to be nominated as follows:—Two by Elmore's Wire Manufacturing Company (Limited), two by Elmore's Patent Copper Depositing Company (Limited), and the rest by the signatories. Qualification, 100 shares. Remuneration, £300 per annum, divisible. Chairman, £30 extra.

Carn Brea and Tincroft Mines.—Registered June 2 by Robbins, Billing, and Co., Surrey House, Victoria Embankment, W.C. Capital £ 90,000, in £1 shares. Objects: To enter into agreements with Carn Brea Mining Company and the Tincroft Mining Company and their respective liquidators for the purchase of the business carried on by them, and to carry on the business of miners, smelters, refiners, metallurgists, &c., and further to acquire any other mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, &c.; to develop and turn to account the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. To construct, maintain, and work rail and tram roads, piers, wharves, docks, warehouses, &c.; to develop the resources of such lands, estates, &c., as may from time to time be acquired by the company by clearing, draining, farming, planting or building thereon, as builders and contractors, farmers and graziers, stock raisers, shipowners, storekeepers, &c. The first directors—of whom there shall not be less than five nor more than nine—are F. Harvey, T. B. Bolitho, M.P., J. R. Bramwell, J. C. Daubuz, E. G. Heard, A. Strauss, and M. H. Williams. Qualification £500. Remuneration as the company may decide. Registered office, Carn Brea Mines, Illogan, Cornwall.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Ironwork, July 15 (*Alexandria*).—The Administration of Harbours and Lighthouses wants tenders for a condenser, 24 cast-iron columns, 36 dredger buckets, some corrugated galvanised iron roofing, a vertical boiler and fittings, three anchors, &c.

Engine and Boilers, June 29 (*Upholland*).—For duplicate pumping engines and boilers for the Upholland Urban District Council. For particulars apply to Messrs. Heaton, Ralph, and Heaton, engineers and surveyors, Wigan. Sealed tenders endorsed to be delivered to Mr. Jos. Bassnett, clerk to the Council, Upholland, near Wigan, not later than 12 noon on the 29th inst.

Coal, June 26 (*Bergen-op-Zoom*).—For the supply of about 2000 tons of English or German coal for the Municipal authorities of Bergen-op-Zoom.

Coal, June 24 (*Atherton*).—For the supply of 4 00 tons best screened gas coal, to be delivered by rail at one of the railway stations in Atherton, or by cart at the Atherton Gasworks, within 12 months from 30th inst., for the Atherton Urban District Council. Sealed tenders, stating full particulars of the coal offered, to be delivered to Mr. D. Schofield, clerk, by 24th inst.

Pumps, June 30 (*Wiestock, Germany*).—For the supply of engine and pumps for the waterworks. Application to the local authority at Wiestock.

Iron Bars, July 1 (*Brussels*).—For the supply of furnace bars to the Belgian Government, for use in the Ostend steamers. Particulars at the Brussels Bourse.

WIRE MINING ROPES.

THEIR TECHNOLOGY, MANUFACTURE, AND USES.

By J. BUCKNALL-SMITH, C.E.,
Author of "Wire: its Manufacture and Uses;" "Underground Rope Haulage;" "Cable Traction for Rail and Tramways," &c.*

No. III.

(*Continued from page* 746.)

THE primitive "selvagee" construction of wire ropes was employed in the old suspension bridges of Geneva and Freiberg, some 70 years ago. Obviously, for running ropes, this system of formation was practically useless; for, as soon as the peripheral "serving" of fine wires was worn through the rope would come to pieces—*i.e.*, the component wires would "brush out" and separate of their own accord. Then, splicing proper was out of the question in the case of constructions composed of a number of parallel wires; again, the ropes were too rigid. On the other hand, it will be clear that the ultimate breaking strength of a "selvagee" rope was nearer the aggregate tensile strength of the component wires separately considered than in the spirally-twisted, "formed," or stranded formations of after years. By building up a rope of helically twisted wires and strands, some 10 to 15 per cent. of the strength of the wires, individually computed, is sacrificed for the convenience of obtaining a flexible self-contained structure, capable of being spliced and freely handled.

It has been previously mentioned that Herr Albert was the originator of the formed or stranded rope, and apparently, from early descriptions published, he from the first laid the component wires of the strands and the strands themselves in the same direction, whereas in hempen structures the fibres and strands were run in opposite directions—a practice later closely observed in wire rope making. Accounts of this unique manufacture appeared in *The Mining Journal* and *The Mechanic's Magazine* in the year 1837. Specimens of this type of wire roping may be seen amongst the Continental exhibits at the Museum of Practical Geology, in Jermyn-street, Piccadilly, and which have been open to public inspection for fully 30 years past; nevertheless, a Mr. Lang, as late as 1879, acquired a patent in this kingdom for the identical construction, which was apparently public property and common knowledge. This prerogative (?) was taken up by Messrs. Craddock and Co., of Wakefield, and ultimately proved a great success for running ropes. Of course, at first prejudices had to be overcome. Many thought that such a construction must unlay itself and could not be effectually spliced. These conjectures and many others proved unfounded. However, some years afterwards, when the merits of the rope were firmly recognised, other manufacturers woke up to the correct or just situation of affairs, and defied the patent. Amongst others, Messrs. T. and W. Smith, of Newcastle-on-Tyne, took a firm stand in the matter; they made the rope and sold it as "Albert's lay," which was, perhaps, as a matter of fact, the more correct title. After a little strife and some threats, the patentee ceased to try to enforce his alleged rights. Now practically every manufacturer in the trade makes this rope for winding and hauling purposes—indeed, it is for such services unquestionably the best construction to employ. Users of ropes should, therefore, keep in mind that a "Lang or Albert lay" signifies a wire rope in which the wires and the strands are all twisted in the same instead of in an opposite direction—*e.g.*, both to the right hand instead of right and left handedly. The advantages of this construction will, perhaps, be more apparent later on upon reference to some illustrations. It will be readily understood that no modification of the plant commonly used in the trade is necessary for the production of an Albert laid rope, the stranding and closing machines are simply run in the one or same direction of rotation.

It may be desirable to emphasise that practically throughout this series we are referring to round ropes composed of cylindrical wires, unless specially stated to the contrary.

In the early days of the industry iron wire was exclusively used, and the Germans took the lead in the trade by some 15 years. Within 20 years after its inauguration steel rapidly superseded the use of iron in the manufactures at issue. At the date of Albert's invention, iron wire cost him about £1 7s. per cwt., whilst the tensile resistance of the size employed was only some 10 cwts. These early manufactures were produced entirely by hand labour on a rope walk. By 1840 R. S. Newall, of Dundee, had obtained a British patent for a machine for the mechanical manufacture of wires ropes; obviously, machinery then used in the hempen rope industry furnished a substantial basis to work upon. Newall's early experiments were carried out in his father's garden. Much ingenuity was brought to bear in devising mechanism so as to effect "stranding" without twisting the individual wires when spinning up. This is the chief problem to be kept in mind whilst designing the machinery of to-day. Newall soon afterwards removed to the Tyneside, and founded a factory to carry out the industry on a commercial scale. Amongst the earliest applications of wire ropes were those used upon the old Blackwall Railway, constructed in 1840. The names of Stephenson, Haggie, Elliot, and Bullivant are indelibly associated with the inauguration and development of the industry under consideration, whilst amongst the pioneers of rope-making machinery the names of Cartwright, Huddart, and Archibald-Smith are likewise inseparable.

In the early productions four strands to the rope were commonly employed; now six are the usual practice. In those days the crude manufacture was conducted with many irregularities and ill proportions; hence their performances were uncertain and comparatively unsatisfactory. At present, in a good factory, the industry is controlled by definite experience and rules of precision. Much care and judgment are now exercised in the selection of the wire, the uniformity of its properties, the lay in the strands, and the rope, &c. In order to obtain the maximum usefulness of any running rope almost scientific minutiæ have to be observed. When great flexibility is required in ropes of comparatively large diameters, two or more layers of fine wires are used in building up the strands; this is styled "compounding." In large marine hawsers this practice is often extended to considerable degrees—*e.g.*, strands composed of seven wires covered by 12, then 18 and 24 wires in turn. In mining ropes, however, such an extent of compounding is seldom necessary. In the manner explained, a rope may be composed of upwards of 400 separate wires. The cores or hearts of wire strands and ropes may be formed of compact hemp or soft wire when designed for flexible or running purposes, but these portions of the structures should be disregarded when computing their breaking strengths. Commonly, the central core of a rope is of hemp, whilst the hearts of the strands are composed of iron or soft steel wires. Compound strands are spun up with variable lays or pitches, so that all the component wires may bear their proportionate amount of the working strain; this is computed by mathematical formulæ. Sometimes a disproportionate lay is given to the outside wires, in order that they may take the greatest portion of the load, as their visible rupture would first indicate any weakness in, or excessive strain on, the rope. The necessary gauge for the component wires of any six stranded rope of a given or desired circumference, may be computed by dividing the required diameter of rope by the number of outside wires to be employed in the strands *plus* three. The largest gauge in cast steel wire used in these manufactures seldom exceeds ·116 inches. It is the practice of some engineers to specify that the wires used in any strands shall be of a gauge not larger than 1-1000th part of the diameter of the smallest pulley or drum over which the rope may have to work.

In order that the spinning of strands and the closing of ropes may be readily understood, we now refer the reader to Fig. 1

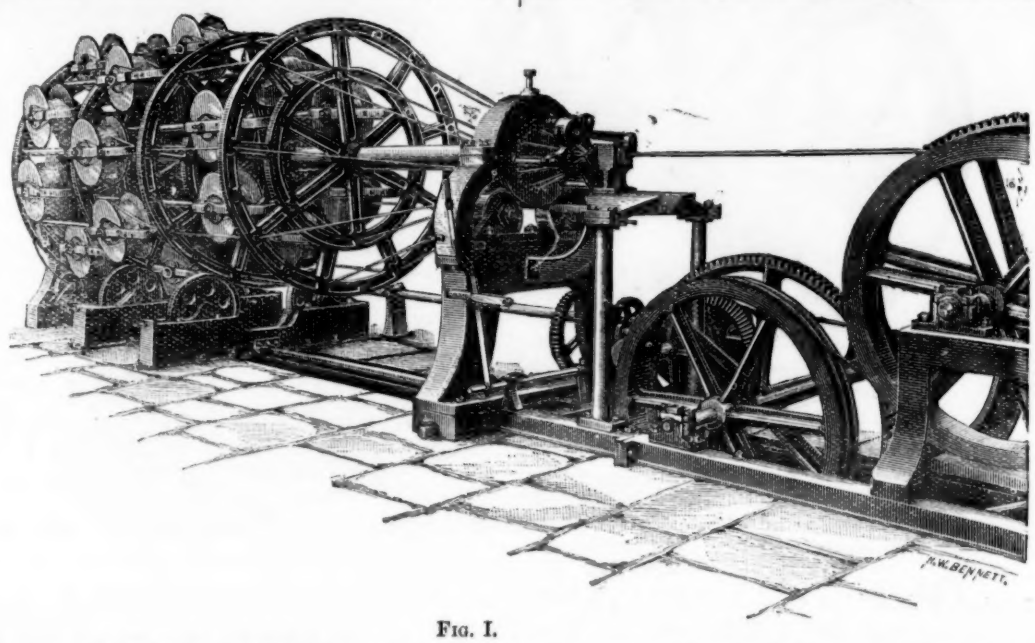

FIG. I.

of the accompanying illustrations, which represents a perspective elevation of one of Messrs. Bullivant and Co.'s most modern forms of stranding machinery, equipped with 24 bobbins. This is a very excellent type of machine, and is of great capacity; by its aid one can spin a strand of 7 wires or any greater number up to (say) 60 wires to the strand. These machines are driven at a considerable velocity—say, some 120 revolutions per minute. The bobbins, it will be seen, are mounted tandem fashion, and have a capacity up to some 240 lbs. of wire each; they are carried by link-shaped "flyers," mounted freely in the rotary annular framing, so that as the latter revolves the bobbins are always maintained in the same vertical attitude, in order to avoid twisting the wires or exerting torsion thereon. This action is effected by a "sun and planet" motion, or its equivalent, arranged at the back of the machine. The core of the strand enters from the rear of the central tubular shaft through which it passes to the fixed die plate in the stationary head stock. The wires are shown radially concentrated at the closing die, and being spun round the core, the complete strand is drawn off by a drum, the angular speed of which determines the length of lay in the strand being formed. The speed of this drum may be varied at pleasure by the use of "change wheels" or gearing. An elastic closing pressure is exerted on the strand, at the die piece, by a weighted lever, which keeps back any undue slack in the wires paid off by the bobbins, which are also controlled by tension straps. As the bobbins and framing make one complete revolution, the draw-drum makes an angular movement equal to the lay desired. The lay or complete twist in strands usually ranges from 3 to 3½ inches in length, whilst the lay in the rope commonly averages from 7 to 9 inches in length. When the wire on any bobbin is worked off a fresh coil is wound on, the wires being united by welding or brazing, and in this manner practically any continuous length of strand may be produced. The completed strands are then wound upon the bobbins of a "closing" machine, which in construction and functions is very similar to a stranding machine, only the bobbins are limited to six in number, and are of much larger diameter. Closing machines for twisting the strands into roping are only driven at a speed of some 20 to 40 revolutions per minute, and a central core is introduced in an identical manner to that carried out in stranding operations. Modern stranding and closing machines may both be driven in either a right or left-handed direction, and to an extent either or both operations may be performed in the same or one machine. Commonly the diameter of stranding bobbins run some 14 inches in diameter, whilst those in the "closers" may attain 4 feet, or even more, according to the capacity of the machine. The bobbins of a few machines in Europe will each hold some 4 to 5 tons of strand so as to be able to close from 20 to 30 tons of rope in one continuous piece. Machines of such exceptional size are at first run at very low speeds on account of the enormous centrifugal force exerted when in operation; as the weight of the bobbins decrease (as the strands are worked off) the speed of closing is increased. Several turns of the rope are taken on the draw-off drum to prevent slipping. The rotary portion of some large "closers" alone weighs as much as 40 tons. Sometimes the lay or spiral pitches in strands range from three to four times the diameter of the rope, and those in the rope itself from eight to ten times their diameters. Since 19 wire strands have become largely used, compound tandem stranding machines have been constructed to spin these multiple wires in one operation. No finer examples of stranding and closing machinery can be met with in Europe than those to be seen in daily operation at Messrs. Bullivant and Co.'s admirably-equipped works at Millwall. Here will be found huge "closers" and stranding devices of every modern description that ingenuity and experience can suggest. At this famous factory wire ropes up to 21 inches in circumference may be seen in course of manufacture.

The ordinary wire rope, with which almost every one must be familiar, is composed of wires spun up to the left, whilst the strands are closed to the right hand—in fact, exactly similar to the formation of hempen ropes. Upon examining this common construction, it will be apparent that it is scarcely the proper form for running ropes, as prominent knuckles are to be seen at the crowns of the strands. When running, the wear is practically confined to these local projecting surfaces—hence such ropes must comparatively soon break up at these parts, or become seriously impaired. According to the Albert or Lang system of construction these defects are mainly overcome by twisting the wires and strands all in the same direction—*e.g.*, both to the right hand. Upon reference to Figs. 2 and 3 of the illustrations this form of construction and its advantages will be readily apparent. The first engraving represents a portion of a new rope; the second a similar piece after considerable wear or service. The illustrations are accurate reproductions from photographs. This Albert-laid rope was manufactured by Messrs. Bullivant and Co., for an aerial ropeway at Badovalle; it is composed of six strands of six steel wires, with soft wire centres and a hempen core. It was put in service during July, 1893, and was removed in July, 1895, after having carried over 165,000 tons of iron ore. The original breaking strength of the rope was 29 1-20th tons, and when taken off it was ascertained to be 27½ tons, or almost as good as when new. This is a remarkable performance, which speaks as well for the material used and the precision of manufacture as the type of construction adopted.

It will be seen that the worn rope has diminished in diameter, but not a single wire has broken on the surface, as would have been the case with a rope of the common construction. For running—*i.e.*, hauling and winding purposes—this type of formation is unquestionably conducive to the most satisfactory and economical results, not excepting any constructions with wires of fancy sections and like novelties, for which well-sounding claims may be made on paper. Some 15 years of continuous service and experience have laid an irrefutable record of unparalleled success in favour of the Albert lay, that no competent or rational person can question, much less deny. It is as easily and efficiently spliced as any ordinary rope; its percentage of stretching, when first put to work, may be rather more, but

FIG. II.

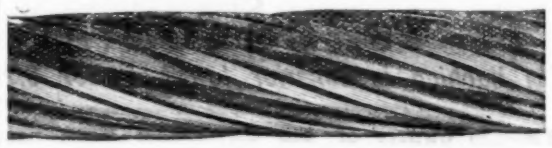

FIG. III.

that can be readily allowed or compensated for. To obtain the best results obviously good materials must be used in their construction, and the manufacture properly carried out, the cost of production being exactly the same as a good quality of rope of ordinary type. Naturally, if a high class of cast steel wire of correct temper costs the maker some £30 per ton, the consumer cannot expect to purchase the rope for that or a like price.

In a rope of the ordinary construction it may be noticed that the wires run almost parallel to its axis. In an Albert-laid rope they run nearly axially, with the strands, and after long service the wires wear down smoothly until the rope assumes the appearance of a polished solid rod.

Much credit is due to the late Mr. George Craddock for popularising or extending the recognition of this excellent type of construction for running ropes, and no mining engineer or official should fail to make himself acquainted with its *bona fide* merits.

MINING IN SARDINIA.—Consul Pernis, of Cagliari, reports that the mining campaign in Sardinia of 1894-95 was less productive than that of 1893-94, the latter having amounted to 155,565 tons, of the value of £529,251, and the former to 152,550 tons, of the value of £480,386. This diminution, especially on the value of minerals, appears in the production of zinc ore, showing in the campaign 1893-94 a value of £337,085, whereas in 1894-95 a larger quantity of produce has a value of £272,893; it appears also in the smaller quantity of silver production, which amounted in 1894-95 only to 857 tons, whereas in 1893-94 it amounted to 1102 tons. The mines and foundries in active operation in the year gave work to 8281 adult male workmen, and 475 under 15 years. The number of females employed in the mining works was 741 adults, and 145 under 15 years; altogether 9642 operatives. The mechanical motors employed in the mining works in 1894 were 84 steam motors of 2511 horse-power and six hydraulic motors of 140 horse-power.

TENDERS FOR COAL FOR SURINAM.—The Secretary of State for Foreign Affairs has received a despatch from Her Majesty's Consul at Paramaribo, reporting that the Government of Surinam have issued their annual request for tenders for the supply of 2000 tons of Cardiff steam navigation coals for the year 1897. A copy of the contract with a marginal translation may be seen on application to the Commercial Department, Foreign Office, between the hours of 11 and 6. Any further enquiries should be addressed to the Beheerder Koloniale Vaartingen, Paramaribo.

WE beg to acknowledge receipt of a copy of Mathieson's Monthly Mining Handbook for mid-June, 1896.

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MINING TENURE IN WESTERN AUSTRALIA.

By RAYMOND RADCLYFFE.

THE British investor is at best a blind creature, and the average speculator in mines is, perhaps, blinder than most. He seldom makes much enquiry about the properties in which he puts his money, either as to their value or the necessity of tenure upon which the property is held. As for the values of gold mining properties in Western Australia, it is not my province to discuss them. I leave this to the experts. But the value of the tenure is a matter of mere common observation, one upon which an ordinary person may well speak, speak plainly. So much money has been sunk in Westralian gold mines during the past two years that a word of warning should be most welcome. Investors subscribe readily for shares in public companies whose directors declare in their prospectuses that they have acquired, or propose to acquire, so many leases numbered so-and-so, in such-and-such a mining district in West Australia. These leases are duly transferred to the company, and the average shareholder imagines that the transfer being completed, the matter is ended. As a fact, it has only just begun. The lease is, it is true, for 21 years, renewable. But it is not an absolute lease. It is purely conditional. Unless the company continually employs so many men per acre, its land is forfeitable. This is called the Labour Condition. One man must be put on each three acres held. It is no use putting 50 men upon one 10 acre block, and leaving the balance of your claims unmanned. If you do this your property becomes forfeitable. You may be employing far more men than the law requires; but if they are not employed as the law directs, you run a risk. Can anything be more absurd? Can anything be more unfair? The supporters of the complicated gold laws of West Australia—and there are many who live not only on these laws, but by their complications—will reply:—"Your supposition is absurd. You have only to explain to the Warden that you require concentration of labour, and he will grant the necessary protection." Exactly! This is what I want to arrive at. The Warden. It is at the pleasure of the Warden. The law is plain that the Warden may grant you exemption. So we have the absurdity of a law which is so strict and so unworkable that the Warden is allowed to alter it when he chooses. But suppose he should not choose. The case is possible. Then you must man each and every acre in your property, although the doing so may result in severe loss, or indeed in partial ruin.

Let us take another case. A company has some valuable leases; it has plenty of capital; no lack of ready money to pay wages. But it is cursed with a dishonest mine manager. Such people have been known to exist. The dishonest manager arranges with a friend, and one day the friend walks into the Warden's Court and jumps the aforesaid valuable leases. What can the company do? They have not complied with the labour conditions. Instead of employing 70 men upon their leases they have only employed 68. The law says that the leases are forfeitable, and the Warden, who may be standing in with the whole crowd, declares them forfeited. A company in West Australia is at the mercy of its mine manager. It is true that the law specially bars fraud. But who is to prove fraud? The mine manager need not have an extraordinarily clever person to arrange his plans, so that fraud would be almost impossible to prove. Western Australia is a long way off, gold fields are not quite as civilised as London, neither are their laws of morality as strict, especially when a case of jumping is about. It is true that the company might appeal against the Warden's decision. His appeals are at best poor comfort, and Ministers of Mines very wisely decline to upset the decisions of their trained experts. I am only taking an extreme case. I am taking a case which more or less implies the criminal connivance of the Warden himself. I shall be told that such a case could never occur. But it might, and under the present law the rogue would win the day. Such cases as those I have instanced should not be possible, and would not be possible if the laws were properly framed. I am not complaining of the number of men the law requires each mine or acre of lease to be manned with. This is in itself a debateable point, but it is not one which in any way affects the tenure. But I do complain, and that most bitterly, that the law as it now stands gives no security of tenure at all. In the Transvaal, as we all know, the companies pay a yearly rent to the Government, and as long as the rent is paid the lease is absolutely secure. It may be, and usually is, paid a year or even two years in advance. In West Australia, although a company may pay its annual rent 10 years in advance, its property may be profitable at any moment, either by the neglect or fraud of its local manager. This is absolutely wrong in principle. That it works very badly indeed, the continued streams of cases in the Warden's Courts is proof positive. None of the Wardens are in favour of the law as it stands. Everybody who has anything to do with mining in West Australia complains. The workmen cry out that exemption is always granted to those in favour at Court. The capitalist, that the labour law was made to catch the labour vote, and stops the influx of capital. The fact is these laws were made for alluvial digging. In the early days of Australia it was found desirable to force men to work the claims they took up. Hence the labour condition. In those days local capital and local labour kept the mines alive. The big mining company, with its head office in London, its main funds in London, did not exist then, and the law worked fairly well. The diggers would, without proper labour conditions, have pegged out hundreds of acres which would have taken them years and years to work, and the colony would have stood still. In those days the law was sensible and fulfilled its main object—the steady development of the gold industry. But things have altered. Large corporations have taken up large areas. They spend tens of thousands upon development and machinery. They desire to work their estates in the most economical manner, and they do not wish to be hampered by labour conditions which belonged to a bygone age, and which are unsuitable to the present day; and, above all, they desire security of tenure. No one could object if the Government of Western Australia, in its solicitude for the labour market, in its anxiety to catch the vote of the labourer, compelled each and every limited company mining in West Australia to deposit a sum of money in the Warden's Court as an earnest of its *bona fides*, and a pledge that it intended working the claims it had bought. Let the sum be large enough to satisfy the heart of the greediest democrat, but let the deposit of such sum carry with it a guarantee that as long as the money remained in the Warden's Court the property it represented was unforfeitable. The terms of such a deposit might easily be fixed. It might remain for one year, two years, or 10 years, or it might be withdrawable at 12 months' notice, or forfeitable by the Government giving 12 months' notice in London. That is not the question. But let such a deposit carry conviction to the heart of the English shareholder that his property was intact and unjumpable. Such money might be held under stipulations which compelled the company to expend it, or the like amount, upon labour. This should appease the labourer.

MINING IN VICTORIA.

THE MALMSBURY DISTRICT.

(FROM OUR OWN CORRESPONDENT.)

MINING development is proceeding steadily, and in a number of instances excellent yields are being obtained. Great activity is being displayed in the Lauriston, Malmsbury, and Taradale districts. Nearly all the old claims formerly abandoned at water level have been taken up, and large areas of virgin ground on the Lauriston and Malmsbury deep leads have been applied for, in the hope that with the assistance of English capital extensive operations may be carried on. The fact that most of the leases will soon be heard of at home induces me to give your readers some idea of the estimation locally held as to this locality and its prospects. From 1853 to 1857 the district was the scene of many "rushes" on the shallow alluvial diggings. Backcreek at Taradale has been prolific in a splendid harvest of nuggets; one of the largest found in Victoria was discovered at this place, weighing 640 ounces. Others have been found weighing respectively 80, 33, 22, 15, 13, and 11 ounces, with numerous smaller ones, all discovered at a depth of from 3 to 12 feet from the surface. When settlement was going on under the several Land Acts prior to 1884, which gave the right of the minerals in the soil in the fee simple of the land, so the days of mining around Malmsbury became doomed, for the diggers would not pay the exorbitant demands of the Crown lessees, and the thousands who were spread throughout the district gradually dispersed themselves over the colony. The Act giving power to mine on private property has given a slight impetus to mining of recent years, but the old days of Taradale and Malmsbury are things of the past. They are like many old English towns, whose commerce has been swept from them by that mighty innovation of modern times—the railway.

Quartz mining may be said to have been initiated in the district with the operations of the Russell's Amalgamated, Energetic, Kangaroo, Govett's, South Russell's, and No. 1 South Russell's, which gave excellent returns in the early days. Looking over the Mining Department's returns of yields of quartz companies up to 1874, the following are worthy of notice:—

	Ozs.	dwts.	grs.
Energetic Company	8079	1	6
Central Company	8123	12	2
North Star Company...	5189	12	12

Coming to more recent times, the Department's returns from quartz mines in the district still maintain a good record; the following yields are among the most noteworthy:—

		Ozs.
Queen's Birthday ...	1883 to 1894 ...	42,840
O'Connor's	1883 to 1894 ...	35,792
Russell's Reef	1885 to 1894 ...	24,623
Egyptian...	1883 to 1894 ...	9,500
South Russell's No. 1 ...	1891 to 1894 ...	7,664
No. 1 South Birthday ...	1884 to 1892 ...	3,284

The Queen's Birthday and Russell's Reef Amalgamated are still good mines, and continue to raise golden stone. The O'Connor's and Egyptian are preparing to amalgamate the two leases for the purpose of working the deep ground in both claims. They are pushing forward prospective work with vigour. The Egyptian's shaft is down 600 feet, the east main drive 700 feet. They are now exploring to cut the Queen's Birthday Reef, which is expected to be met with at a lower level in this ground. Both mines are to be floated in London. The Lauriston and Malmsbury field is part of the great belt of gold-bearing country running in a slightly west of north direction from Lauriston, through Malmsbury, Taradale, Castlemaine, and Bendigo. The bedrock consists of Lower Silurian strata, either appearing at the surface or hidden beneath the basalt which covers the surface to a large extent. The fact that gold is being obtained in payable quantities at depths little dreamed of as its repositories two decades ago is the best evidence that could possibly be desired, that the lodes in the Malmsbury district live in depth, and that quartz mining as far as this locality is concerned is yet in its infancy, and a mere prelude of what is yet to be. As already stated, in the same belt 30 miles north on Bendigo payable stone is being raised from a depth close on 3000 feet.

The Deep Leads.

The district also contains a network of alluvial leads and tributories, hitherto worked by co-operative parties, but of whom it may be said none have penetrated the deep ground. Many have been known to take as much as £1500 to £2000 of gold out in a few months from claims on the shallow tributories on the east side of the Coliban River, near to Malmsbury, but the unthrifty habits of the early diggers, the excessive demands of private landowners and the smallness of capital of the latter-day companies, have each and all contributed to prevent any work being done on the main trunk lead. Not until the Government put down a series of bores recently, to prove the extent of the main trunk lead, which trends in a zigzag course from south to north, from a point south of Lauriston through Malmsbury onwards, has any serious attempt been made to work the deep alluvial. The first to show signs of life is the Campaspe Deep Lead Company, an English company, represented by Sir Thomas Elder, with a capital of £100,000, in £1 shares, £40,000 of which has already been placed to the credit of the mine. An efficient plant is about to be erected, and the directors evidently mean to appreciate the full significance of this description of mining. Their ground is at the Lauriston end of the lead, and adjoining them on the south is the Lauriston Deep Lead Syndicate, who have taken up 1000 acres to be floated in London. The result of the bores show that the gutter is reached at depths varying from 300 to 330 feet from surface, and has been proved in length over a greater part of the area, having a body of wash over 80 feet in width, and a depth of from 2 feet to 7 feet 8 inches. The main lead in the Lauriston Syndicate's ground is fed by numerous tributories and branch gutters, some of them worked with splendid results in former years—notably, the Royal Standard, the Glengowan, the Glengonner, the Star, and the New Chum, the Royal Standard in 1874 yielding 4300 ounces of gold. It is impossible to resist the conclusion that the wash is even richer in the deeper ground, which, as yet, has only been tested by bores. A few miles north of the Campaspe Company another large area of ground, 800 acres, has been taken up by the Malmsbury Deep Lead Syndicate, also to go to the London market.

Their ground is on the main trunk lead at the junction of the Drummond, the Belltopper, the Ironstone, and the Lord Malmsbury leads, all of which have been ascertained by the line of workings to converge into the main trunk lead on the east side of the Coliban River, a little to the north of Malmsbury, where the main lead takes, as shown by the bores, an almost due easterly course for a long stretch.

Each of the tributories mentioned are in their turn fed by numerous branches, some of which have been the richest leads worked in this district. Taking the Mining Department's returns for my figures, I find the Golden Gate branch to have yielded 10,300 ounces, Bell's lead close on 10,000 ounces, the Victoria Junction over 3000 ounces, and two other small branches of the Drummond lead 3500 ounces of gold. The reasonable inference is that where the tributories and their branches have afforded such handsome returns, the main trunk lead—the course of which has been carefully plotted by bores—ought to be regarded as possessing similar conditions. The width of wash in the Golden Gate is 300 feet, with a depth varying from 6 inches to 3 feet. The Ironstone's width of wash is 150 feet, and the Lord Malmsbury lead 300 feet wide. With the feeding tributories of such dimensions, all doubts may well be dismissed as to the width and depth of paying wash in the main trunk lead. The result of the bores on the Malmsbury Syndicate's ground show the sinking to be through 30 feet of loose surface stripping, 200 to 250 feet of basalt, coming on to a stiff clay from 10 to 20 feet, resting directly on the gold-bearing gravels, averaging a total depth from surface to gutter from 250 to 300 feet. The bores show there are no live drifts to contend with, and beyond the rock water draining into the gutter, there are no such water difficulties to contend with in this basaltic area as exist in the softer ground of other well-known alluvial fields of the colony. There can be no doubt that the great network of quartz reefs traversing the Colibau River valley and the valley of the Campaspe have furnished the material for the productive older pliocene gravels so well exemplified in this locality.

With a reasonable working capital, prudence, and spirited management these and other companies who may be tempted into the same ground have ample scope before them of seeing results which, I am sure, will please them greatly, and prove to the world that the Malmsbury district—famous for its richness in former days—is still a gold field of great extent, worthy the attention of those capitalists who are spending so much capital in the mining industry.

Bendigo Gold Return

The amount of gold purchased by the Bendigo banks for the month of April was 16,543 ounces 11 dwts. 19 grains, against 13,483 ounces 9 dwts. 2 grains in April, 1895—an increase of 3060 ounces 2 dwts. 17 grains.

The following were the monthly purchases for April for the past five years:—

1892.	1893.	1894.	1895.	1896.
Ounces.	Ounces.	Ounces.	Ounces.	Ounces.
15,569 ...	16,487 ...	14,564 ...	13,483 ...	16,543

THE PRESENT POSITION OF GOLD MINING IN WEST AUSTRALIA.

By CARL SCHMEISSER.

(Translated especially for *The Mining Journal* from the "Zeitschrift für Praktische Geologie," May, 1896.)

WHILST gold mining has existed in a flourishing condition for a considerable period of time in the eastern colonies of Australia, the occurrence of valuable deposits in the but recently opened up colony of Western Australia remained unknown. It is only within the last few years that reports of the exceptionally rich gold finds which had been made in Western Australia attracted the attention of miners and capitalists to this colony. The opening up of these new fields was quickly taken in hand by men of energy and activity, hard working miners promptly made their way to them, more particularly from the eastern colonies, and capital in ever-increasing proportions was found for these new undertakings, first in Australia and subsequently in Europe.

With the permission of the Minister at the head of my department—the Royal Prussian Minister for Commerce and Trade—I went to West Australia with instructions from the London and Western Australia Investment Company to examine the general nature of the deposits. I accordingly spent five months in the colony, and thus studied the essential conditions of West Australian mining as thoroughly as was possible, given the great extension of the gold fields, and the inherent difficulties of travelling. In this expedition I was accompanied by the Royal Assistant-Inspector of Mines, Dr. Vogelsang, of Bonn, whose learned and ungrudging assistance was of the utmost service to me in the accomplishment of my task. The short time at our disposal, and climatic considerations, compelled us to confine our labours to the gold fields of Coolgardie, Yilgarn, and Murchison.

With the reserve that I propose to publish later on the observations collected during this journey, with reference to geological and mining considerations, I will now give a brief description of my studies on the gold fields of Western Australia.

Geographical Relations of the Gold Fields.—The occurrence of gold in Western Australia has been recognised in the whole central part of the colony, and almost from the south to the north coast. The entire gold area has been subdivided into 12 fields, which are under the charge and administration of officials (Wardens) appointed for that purpose. These fields, going from south to north, are as follows:—

1. Dundas gold field	16 000	square	miles.
2. Coolgardie gold field ..	11,800	"	"
3. East Coolgardie gold field ..	21,505	"	"
4. North Coolgardie gold field..	37,200	"	"
5. Yilgarn gold field	14,320	"	"
6. Yalgoo gold field	17,400	"	"
7. Murchison gold field.. .	19,000	"	"
8. East Murchison gold field ..	60,550	"	"
9. Ashburton gold field ..	9,000	"	"
10. Pilbarra gold field	34,000	"	"
11. West Pilbarra gold field ..	8,500	"	"
12. Kimberley gold field ..	47,000	"	"

The total area of these fields is thus 296,225 square miles, almost one and a-half times the size of the German Empire (and nearly two and a-half times that of Great Britain and Ireland.)

With the exception of certain portions of the North-West gold field, which lie along the coast, the entire gold area of West Australia forms part of the Central Australian tableland, which is in part quite flat, in part undulating country, and possesses no mountains of any particular importance.

Typical Australian bush, chiefly species of eucalyptus and salt bush in the south, almost exclusively mulga bush in the north, together with various grasses and spinifex, forms the vegetation that covers, often but scantily, the sandy soil. No stream of running water, no river, no lake, breaks the monotony of the landscape, and only in a few scattered localities of the southern gold fields, though rather more frequently in the northern ones, are small water holes found in particularly sheltered natural depressions of the surface or in hollows in the granite. Often will the traveller come across extensive vegetationless shallow basins, filled with a reddish brown sand, generally covered with a thin crust of salt; these are the so-called salt lakes, in which a certain quantity of water collects after heavy rains, only to disappear again in the sand after the lapse of a few hours. Only once during the four months of my travels in the gold fields did I ever see any water in such a lake. As mirage often deceives the traveller by presenting the illusions of large bodies of water, I would not trust my eyes until I had actually dipped my hand into the water itself. I shall refer subsequently to the part that these lakes may play towards travellers and the industry of the country.

The three ports—Albany, Fremantle, and Geraldton—connected with the capital (Perth) by railways. A branch line to Coolgardie is being constructed from the station of Northam on the Albany-Perth line, *via* Southern Cross, the last 40 mile section of which will very shortly be completed.* A branch line from Geraldton to Cue, the capital of the Murchison gold field, is completed as far as Mullewa. The construction of the portion

* It was opened on March 23.

from Mullewa to Cue, 200 miles long, will shortly be commenced. The following main routes—

Coolgardie to Kalgoorlie	25 miles
Coolgardie to Kanowna (White Feather) ..	32 „
Coolgardie to Menzies Niagara	142 „
Coolgardie to Edjudina	135 „
Cue to Nannine	85 „
Cue to Lawlers	250 „

have to be travelled either by mail coach or by private conveyance. Beyond the above-named terminal points, camels form the mode of transport generally adopted.

High roads for wheeled vehicles, or caravan routes for camels, have to be so laid out that stations for water supply can be arranged at not too great distances apart. For this purpose water has to be obtained either by the construction of artificial tanks to collect the result of atmospheric precipitation over extensive areas, or by sinking wells for fresh water in suitable country, or by wells sunk in the salt lakes, which collect the salt water that has percolated into the sand. The latter has, of course, to be fitted for use by distillation. The further advance of gold mining pioneers towards the east and north-east can thus be rendered possible, although only slowly.

General Geological Relations.—It is a very difficult matter to obtain any knowledge of the general geology of Western Australia, partly on account of the peculiar contour of the surface, which presents neither hillsides nor river banks, in which sections an outcrop might be visible, and partly on account of the disintegration of the rocks, which has extended to very great depths. Granite forms the fundamental rock of the gold fields; it crops in many places, notably in the Murchison district, generally in the form of flat bosses. Over extensive areas it is overlain by stratified rocks, striking S.S.E.—N.N.W., with very steep dips, consisting of clay slates, quartzites, and quartzitic sandstones, which are often replaced by phyllites, talcose and chloritic schists. Eruptive masses of diorite and diabase of great length and width penetrate both the granite and the sedimentary strata in a direction generally S.S.E.—N.N.W. Diorite and diabase also seem to occur as sheets interbedded between the sedimentary rocks; they have often assumed a slaty structure as the result of pressure.

Mining operations have disclosed the fact that, with the exception of a relatively small number of localities where they crop out in an undecomposed state, and can be utilised as building materials, these eruptive rocks have been thoroughly decomposed down to depths of from 70 to 150 feet, and have been changed partly into a ferruginous, clayey, talcose rock of white, grey, or yellow colour, and partly into kaolin of exceptional purity. The granite, too, is often decomposed to similar depths with the formation of a pure white or yellow kaolin or clay according to the composition of the granite, intermixed with sharp-edged particles of quartz.

Dykes of felsite-porphyry also occur, but far less in number and importance than the eruptions of diorite and diabase. All the above rocks are often covered by far-stretching horizontal beds of conglomerates, sandstones, and breccias, the latter of which are often highly ferruginous, as also by alluvial deposits. The geological age of the conglomerates, sandstones, and breccias has not yet been determined, no fossils nor other characteristic indications having yet been discovered.

Auriferous Deposits.

The formations of Western Australia carry a large number of veins, beds, and alluvial deposits of gold.

Veins.—Diorite, diabase, granite, and the stratified rocks are all traversed by numerous veins, whose general strike is S.S.E.—N.N.W., or else S.S.W.—N.N.E., with a dip generally to the westwards. Strikes in other directions than the above-named main bearings are by no means abundant.

In places the veins are often collected into vein groups or vein series; among the more important of these, hitherto discovered, may be mentioned :—

Dundas gold field—	Dundas group.
	Norseman group.
Coolgardie gold field—	Coolgardie group.
	Wealth of Nations group.
	25-Miles group.
	Siberia group.
East Coolgardie gold field—	Kalgoorlie (Hannan's) group.
	Kanowna (White Feather) group.
	Broad Arrow, Bardock group.
	Bulond (I.O.U.) group.
	Kurnalpi group.
North Coolgardie gold field—	Goongarrie (90 miles) group.
	Menzies group.
	Niagara group.
	Edjudina group.
	Mount Margaret group.
Yilgarn gold field—	Southern Cross group.
	Parker's Range group.
Murchison gold field—	Mount Magnet group.
	"The Island" group.
	Day Dawn group.
	Cue group.
	Dead Finish group.
	Nannine group.
East Murchison gold field—	Lawler's group.
	Lake Darlot group.
Yalgoo gold field—	Yalgoo group.
	Pingalling group.

Ashburton gold field.
Pilbarra gold field.
West Pilbarra gold field.
Kimberley gold field.

Besides these, a number of smaller vein groups are known, as also separate veins which cannot be included with any definite group.

The country between the proclaimed gold fields and the eastern boundary of the colony has only been traversed by a very few travellers, in consequence of the inhospitable nature of the land, and especially of the difficulty of water supplies, and has accordingly never been examined geologically. There are, therefore, no data at hand that might enable the eastern limits of the auriferous area of the West Australian colony to be fixed.

The veins may be divided into two classes—(a) composite veins, (b) simple veins. In the former, I propose to include all those deposits which the Australian miner designates "lode formations." They are veins whose filling material consists of more or less altered country rock traversed by numerous strings and bunches of quartz. The single quartz veins (quartz reefs) are those deposits in which the fissures are practically filled with quartz alone.

Composite Veins.—These composite veins occur chiefly in diabase and diorite, more rarely in granite and in the primary sedimentary rocks. Their thickness is extremely variable, sometimes extending only to a few feet, sometimes, however, very much greater, extending up to 100 feet or more. The thickness, moreover, is liable to great alterations within the same deposit, running down sometimes to nothing when the vein wedges out completely. With few exceptions, they have up till now been opened up only in the zone of decomposition of the country rock. The composite veins that traverse the diabase and diorite are accordingly filled in part with a brick-red, reddish-brown, or yellow ferruginous clayey or talcose rock mass, in part with kaolin of a yellowish or reddish, at times, however, of an exceptionally pure white colour. The composite veins that traverse the granite are, on the other hand, filled with white or, at times, yellow kaolin, containing numerous granules of quartz. This vein matter is traversed by a great number of quartz bodies of very variable dimensions running in all directions, but in the Kalgoorlie vein group chiefly east and west. These quartz bodies are white, grey, brown, yellow, greenish, or black, and are often of a cellular "vughy" character — at times quite resembling a silicious sinter.

The more bunches and strings of quartz there are in any deposit, and the more shattered or cellular the quartz is, the richer is the vein as a rule. The boundaries between the vein and the country rock are mostly well-defined only on the footwall side. On the hanging wall, more rarely on the footwall, there is generally a more gradual passage of vein matter into country rock. Well-marked shear planes are to be seen on the footwall, and often in the body of the vein itself. With these composite veins may also be included a few dykes, apparently of felsite-porphyry, of considerable thickness. Such a dyke in the Tyndall Mine is up to 46 feet wide, and occurs in diorite; the rock, which is traversed by numerous strings and bunches of quartz, is extremely decomposed in the upper levels.

Simple Quartz Veins.—Many quartz reefs traverse the formations in all directions, but run chiefly north and south, with smaller variations eastwards or westwards. They have the most varying dimensions, from 1 inch up to several feet; exceptionally even quartz bodies of from 30 to 80 feet in thickness are known. They widen and narrow repeatedly both in horizontal and vertical extension; in the latter case down to complete wedging out. The walls of these quartz veins are generally sharply defined. Some quartz veins appear as lenticular veins; larger or smaller bodies of quartz wedge out so completely both along their dip and their strike, that they assume a more or less lenticular shape. This lenticular appearance is best seen in the veins of the Edjudina group. The veins there consist almost conclusively of a series of well-formed lenticular masses of quartz of most varying dimensions, the lengths of their axes ranging from 18 feet; 12 feet; 4 feet, down to 6 inches; 3 inches; 1 inch. The quartz of the simple veins, like that of the composite ones, varies in colour from white to grey, brown, yellowish, greenish, or black, and is often cellular or vughy.

Contact veins often occur. Bedded veins are generally found where the veins traverse stratified formations.

Further Remarks on the Veins.—The composite veins, like the simple ones, are generally to be looked upon as mineralised fissures, coincidently with the formation of which the country rocks have mostly been faulted, the faults being usually of the normal, more rarely of the overlap description. In the case of the composite veins, the dynamic effects produced by the movements of these rock masses have involved considerable portions of the country rock, and have crushed them and ground them to powder. In this way the crushed rock matter that was included between the foot and hanging walls, and which was also transformed by the action of mineralising solutions, became converted into vein matter. Evidence of intense pressure is to be found in the shear zones and slickensides that are visible in the vein bodies, as also in the slaty structure that has been produced in the greenstone of the footwall or the hanging wall.

These composite veins and the simple quartz reefs are nearly the opposite terminals of a series of types of vein formation, every intermediate transition stage of which is to be found in every degree of development.

This short article is not, however, suitable for the discussion of these relations; I will only add that such transition forms, which generally seem to be much poorer than the typical composite veins, are often, although erroneously, spoken of as lode formations by the West Australian miner, in order to make the deposit appear to possess an increased value.

Whilst quartz reefs occur in all the vein groups, composite veins, as far as has hitherto been determined, are found chiefly in the vein groups of Kalgoorlie, Broad Arrow, Bardock, and Bulong; nevertheless, in the Menzies, Cue, Yalgoo, Mount Magnet, and other vein groups, composite veins of more or less typical character and in places of extraordinary size have been shown to exist, although they are less numerous than in the first-named groups. The occurrence of mineralised dykes is confined, as far as I was able to observe, to the southernmost vein group.

The course of the quartz reefs can mostly be traced on the surface by shoadstones of quartz or by crests of quartz of greater or lesser prominence, rising in places to heights of from 20 to 40 feet. The strike of the composite veins is often not indicated at all on the surface, or only by outcrops of ferruginous quartz and impure ironstone.

Mineral Contents of the Veins.—Gold occurs both in the quartz of the quartz reefs and in that of the strings and bunches of the composite veins and in the other veinstuff of the latter. Whilst, however, the gold contents of the quartz veins proper, and in the quartzose portions of the composite veins, attains an average of several ounces to the ton, it is often reduced to a trace in the other vein matter, only reaching 15 dwts. or 1 ounce to the ton in the richest of these deposits. The gold is mostly so finely divided in the ore that it is invisible to the eye. Visible gold, however, is often found. In the composite veins this latter appears as a very fine-dust like coating, or as dots or stars, or as a soft spongy deposit easily wiped off with the finger, as also in fine hackly particles, in thin sheets, or in thick, jagged, or massive lumps, of the most varying forms, dimensions, and weights. For example, a lump of gold weighing 303 ounces 10 dwts., and containing but a small admixture of quartz, was recently found in the outcrop of a quartz body, some 6 feet below the surface, on the Devon Consols claim at Black Flag.

In those veins that consist of dark coloured quartz, especially where the colours are yellow, brown, or grey, the gold is generally found finely divided and disseminated through the whole body of the quartz; in the white and milk-white varieties, on the other hand, the gold is generally in specks, or in smaller or larger hackly particles in fine seams that traverse the quartz. The gold in the deposits is, as a rule, concentrated in chutes, which always dip to some extent in the direction of the strike; the amount of precious metal may rise in these chutes to considerable richness at times, but, on the other hand, falls off outside their limits to so low a point that the deposit is utterly unpayable. Moreover, the gold is very irregularly distributed inside the chutes; very rich spots often alternate with perfectly barren ones. On account of this irregularity it is absolutely necessary for many of the mines to take samples continually as the workings advance, and to define accurately in this way the portions of the deposits that appear to be sufficiently rich to be worth working.

Another fact that has often been observed is that the outcrops, either continuously for a certain distance or in isolated pockets, shows an important enrichment above the tenure of the bulk of the vein. This circumstance has repeatedly given rise to an utterly erroneous estimate of the value of deposits, but as soon as deep mining is undertaken a marked diminution in the gold contents leads to the inevitable disenchantment. In the more favourable of these cases, the ore in depth, although considerably poorer, can, nevertheless, by worked with profit. In other cases it is poor, even to complete barrenness.

Of other minerals, the West Australian veins only show a certain, generally unimportant, quantity of silver, and in the deeper, less decomposed portions of the veins, iron pyrites, arsenical pyrites, in places galena, and, more rarely, copper pyrites, together with the decomposition products of these minerals in the upper levels.

The mineral contents of the veins are often found to extend in minute quantity into the country rock.

The depth of the zone of decomposition varies greatly in the different mining districts. Its average depth for instance is :—

In Cue district	60 to 80 feet.
„ Edjudina district	80 to 90 „
„ Menzies and Kalgoorlie	130 to 150 „

It is, however, very variable even within the same district.

Interruptions of Veins by Cross Veins and Fissures.—The veins are at times traversed by cross veins of gold quartz, by dykes and by fissures, in which case faults are generally found to accompany the interruption. These phenomena are not, however, of very frequent occurrence.

Continuance of the Veins and of their Auriferous Contents in Depth.—It would be of the utmost importance to be able to obtain a sufficiently clear opinion respecting the continuance in depth of the West Australian veins, and the permanence of the gold as far, at any rate, as the indefiniteness and irregularity of vein phenomena would permit of such a comprehensive judgment being formed. The solution of the question whether the auriferous character of the composite veins continues down or not into the undecomposed pyritic zone would possess the greatest possible interest. In this respect I have to express my regret that I could not postpone my expedition to the Australian gold fields for a year or so. Mining in West Australia is still in the elementary stage. Nowhere has any noteworthy depth been attained, the deepest workings so far being :—

Bayley's Reward	330 feet
New Chum	240 „
Hannan's Reward	285 „
Great Boulder	200 „
Ivanhoe	193 „
Fortune of War	183 „

Almost all the other mines are working at far shallower depths. In one or two years far more extensive developments than exist to-day would furnish data for the solution of this momentous question.

As regards many quartz veins it has, however, already been observed that the deposits do actually wedge out at proportionately small distances and depths. Also in the case of lenticular veins there are indications that make a continuance in depth appear doubtful. Observations in mining, and especially in gold mining in other countries, have shown that a considerable longitudinal extension and great width of veins is generally accompanied by corresponding permanence in depth. It may, therefore, be hoped that veins presenting these characteristics, amongst which many of the composite veins may be counted, will continue to greater depths, but nothing certain can be predicated about this point.

There are but few data at present to show how the vein matter, both as regards gangue and mineral contents, will behave when the zone of pyritic ores is reached. Hitherto undecomposed vein matter has only been cut in the Ivanhoe Gold Mine on the 193 feet level; it there consists of a quartzose rock carrying much pyrites, and, as I was able to see for myself, a fair proportion of fine gold. Although this purely local observation is not sufficient to solve satisfactorily the question whether the gold contents of the composite veins continue in sufficient proportion into the pyritic zone of the veins, it has, nevertheless, a certain importance in this respect that should not be under-rated.

In connection with the above still open question, I have heard comparisons with the Witwatersrand deposits instituted; but against these I must point out decidedly that over there we have to deal with an entirely distinct set of geological phenomena, and that stratified deposits admit of a much broader basis for a judgment of the permanence of mining therein than do the irregular and ill-defined conditions of vein mining, which entirely preclude calculations of a far-reaching character.

The observation may be added that the veins with an east and west strike present far less favourable conditions as regards extension in length, development in depth, and richness of contents than do those veins that strike north and south.

Bedded Gold Deposits.—Horizontal beds of the nature of sandstone, in places also of conglomerate, which overlie the primary formations over extensive areas, have also been repeatedly found to carry a certain amount of gold.

In the Kanowna district fragments of quartz, in part sharp-edged, in part more or less rounded on edges and angles, and in part so rounded as to form perfect lenticular or spherical quartz pebbles, of very varying sizes, are found imbedded in a soft, clayey, talcose mineral of white, red, brown, yellow, or greenish colour. Similar quartz fragments occur 25 miles north-west from Coolgardie enclosed in a kaolin-like mineral generally of a white colour. These deposits were probably formed by the disintegration of the outcrops of quartz veins lying at higher levels. The broken down quartz carried by water or by wind became embedded in the product of the decomposition of the country rock, which was apparently diabase in the Kanowna district and granite in the 25-Miles district. Through the inclusion of the gold that had been contained in the quartz outcrops, and, perhaps, also by the action of mineral solutions that percolated through them, these beds became gold deposits of, in places, considerable richness. They are, therefore, being worked in several localities.

Alluvial Gold Deposits.—The alluvial deposits of the gold fields have, in almost all districts where important gold deposits exist, been found to be auriferous—in spots even extraordinarily rich. Gold grains of all sizes and nuggets of several ounces in weight* have repeatedly been found.

* The heaviest nugget, weighing 333 ounces 8 dwts., was found in the year 1890 in the Pilbarra gold field.

(To be continued.)

NEW BULTFONTEIN MINING COMPANY (LIMITED).—The London board of directors have received information that at an extraordinary general meeting, held at the head office in Kimberley, resolutions were passed to the effect that the capital of the company be increased from £200,000 to £250,000 by the issue of 50,000 shares of £1 each, whereof 27,500 shares shall be applied for the purchase of the Premier Mine, with all its claims, machinery, and assets, and that the balance of 22,500 shares be held in reserve by the company.

THE SANTA ANNA GOLD MINING COMPANY (LIMITED).—Letters of allotment in the reconstructed company have been duly posted.

MEETINGS OF MINING COMPANIES.

HANNAN'S REWARD GOLD MINING COMPANY, LIMITED.

The ordinary general meeting of the shareholders in the Hannan's Reward Gold Mining Company (Limited), was held at Winchester House, E.C., on Wednesday, Dr. J. H. TROUNCER, Chairman of the company, presiding.

The SECRETARY (Mr. F. P. Baxter) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said he had great pleasure in meeting the shareholders that afternoon. On the last occasion when he had the honour of occupying the chair, Hannan's Reward was known to comparatively few people, and the number of shareholders was at that time very small. He was happy to state that the history of the mine had extended so far that they had shareholders in France, Australia, and many other parts, numbering altogether about 450. Hannan's district had now a world-wide reputation, and Hannan's Reward happily held a very respectable position amongst the gold mines there, and the directors hoped it would distinguish itself, and become remunerative to the shareholders in a high degree. It was not his intention to occupy the meeting at the present time, because there were other gentlemen present who were more familiar with the property in Australia. First of all, they had the pleasure of the presence of Mr. B. Rey, one of the largest shareholders in the company, and that gentleman, who had gone out to Australia at his own expense to obtain information regarding the property and other mines in Australia, would address the meeting. They had also present their old manager, Mr. Corbould, who had reported on the property, and he also would address them later on. He had opened up the mine in an admirable manner, and although the company would lose his services as their manager in Australia, they would still retain his services as consulting engineer. The directors had received a letter from their present manager, Mr. Stephen Harris, dated April 25. Mr. Harris had been well known to Mr. Corbould for several years, and he spoke of him in the highest terms. The directors had also some knowledge of him independently, and they concurred in the encomiums which had been bestowed upon him by Mr. Corbould. Mr. Harris wrote as follows: "Acting under instructions from Mr. Corbould, I arrived here on Tuesday, the 21st inst., to take charge of your property during his absence in England. I have made a thorough inspection of the mine, and must congratulate you on your property, which compares favourably with any in the district. The mine is thoroughly opened up, and reflects great credit on your officers. I find a vast body of ore at No. 1 level, which, if comparatively low grade, still represents a very valuable asset if treated economically on a large scale, while the series of small rich veins proved by the main north and south drive will prove invaluable in regulating the yields when crushing operations shall have commenced. The occurrence of so many of these veins leads me to believe that where they junction with the main lode something sensationally rich may be expected. The pyritous veins met with in the last 16 feet of the main shaft I consider the most important development which has yet taken place on the field, inasmuch as it proves beyond a doubt that the free gold exists at a much greater depth than has hitherto been supposed. Again, the fact that the pyrites (of which there is a large percentage in the rock) is very rich, makes the development one of the highest importance to the shareholders, and augurs well for future dividends. In all probability where these veins intersect the lode, at some 20 or 30 feet below the No. 3 level, very rich ore will be obtained." A cablegram had also been received on the previous day from Mr. Harris, as follows:—"No. 2 level, lode 5 feet; No. 3 level, lode 8 feet; pyrites 20 per cent, assaying 26 dwts. to 5 ounces per ton. There are 6500 gallons of water in 24 hours." That was what they had been longing for for many months. Mr. Corbould anticipated that when they struck the lode at that depth they would most likely obtain water, and they had found it in the quantity stated in the cablegram. This would be of great value, and would improve the prospects of the mine. During the past 12 months the directors had been endeavouring to obtain 12 acres of land immediately adjoining the property. It was thought very valuable by others, and a little contention had arisen with regard to it, but a cablegram had been received stating that the matter had been decided in favour of the company, with legal costs. There was still the question of an appeal, but the directors were of opinion that that would fall to the ground. They, therefore, hoped to take possession of the property, which would certainly be a very valuable addition to Hannan's Reward. (Hear, hear.) Of course, the property was not yet half developed; in fact, they had only prospected a part of the 27 acres, which, with the addition of the 12 to which he had referred, would make 39. In conclusion, he moved that the report and balance-sheet be received and adopted.

The Hon. AGAR WYNNE seconded the motion.

Mr. SAMUEL JAMES said he must say that Mr. Corbould had been recommended to him in the highest possible terms as one of the greatest experts in Australia, but he read the report with much surprise and disappointment. In the first place, it was dated January 6, and what the shareholders required was information up to a later date. Personally, he had received information by cable that the reefs had been cut at the 200 and 300 feet levels, but he had not heard anything as to the value of those reefs. He believed the Hannan's Reward was one of the best mines in the whole Kalgoorlie district, and he thought they ought to be supplied with information regarding the assay value of the ore discovered.

The CHAIRMAN, in reply, said he had already read the cablegram which contained the most recent information received from the property. The second and third levels referred to the 200 and 300 feet levels.

Mr. JAMES expressed himself satisfied with the information.

Mr. B. REY, who last year spent about five months in the West Australian gold fields, said a great deal of that time was occupied in looking over their own property, of which he was a director and one of the largest shareholders. He had travelled 2000 miles all over the country, and had seen hundreds of mines, and he had come to the conclusion that none had been developed in a more workmanlike manner, which reflected the greatest credit on the late manager. He would like to point out that the responsibility of the financial arrangements of the company and the choice of the manager rested with the board, but the technical work of the mine, the periodical reports, and the information as to the work done and the results achieved, were in the hands of the manager. It was his pleasure to state that no more reliable man could be found than Mr. Corbould, and, therefore, every word of his report could be thoroughly relied upon. In fact, he understated rather than overstated the case. When he spoke of the ore assaying (say) 15 dwts. or 1 ounce, those figures were only a minimum. Another important feature in connection with Mr. Corbould's management had been the great economy with which the mine had been developed. The use of a winding engine, tram rails in the drives, and a good ventilation, had been the means of effecting a great saving of labour and expense. As an instance of Mr. Corbould's generosity, he desired to mention that he had accepted the position of manager at a very low salary, and had refused to accept an increase until the mine had reached a dividend-paying stage. In answer to Mr. James's observations, he desired to state emphatically that no board was more careful than theirs to publish the information that came from the mine immediately on receiving it. This information was immediately dispatched to the principal financial papers, and if Mr. James was a subscriber, he would have had an opportunity of reading the reports from the mine in those newspapers the day after they came into the hands of the directors. Mr. CORBOULD, the late manager, referring to the work which had been done on the property during the past 12 months, said they had about 40,000 tons of stone in sight. Having that quantity of stuff in sight, they had to get down and find a supply of water, and prove whether the lode continued in depth. It was useless to spend a large sum of money on machinery unless they knew that they could obtain an adequate supply of water, and that the lode continued in depth. With this object they left the lode at the 88 feet level, and pushed on to the 300 feet level, and for some time past there had been nothing to report, except the fact that a certain number of feet had been sunk and driven in country. When they reached the 296 feet they struck a formation of quartz carrying gold and pyrites. The gold occurred in patches, showing pieces from 1 dwt. up to 3 and 4 dwts., also carrying 20 per cent. pyrites, which assayed 7½ ounces per ton. They pushed down through this formation to the 312 feet. At the bottom of the shaft the auriferous quartz and pyrites were still there, but they could not tell how much deeper they would go. They then opened up the No. 2 and No. 3 levels to prove that the lode continued, and with that object they put in a crosscut at the 210 and 300 feet to cut the main reef. They calculated that the lode was about 60 feet to 70 feet east of the shaft at the 300 feet. At that level they cut the lode at about 70 feet; there it was proved to be 8 feet wide, according to the cablegram which only arrived the previous day, and it carried 20 per cent. of pyrites, and gave from 26 dwts. to 5 ounces of gold to the ton. At the No. 2 level they had proved the lode to be 5 feet wide, carrying 10 dwts. of free gold and 12 per cent. of pyrites, which assayed 5½ ounces to the ton, or an average of about 22 dwts. The manager also mentioned in his cablegram that at the No. 2 and No. 3 levels the lode was faulty, but as he continued the drive north and south he expected the lode to widen out again. At the No. 1 level the reef was from 20 to 40 feet wide, but in the No. 2 level it came down to 5 feet. The reef there, however, had faulted, and as the manager continued to drive the lode would, he believed, open out again. If the lode was pinching out altogether, they should expect to find it at the No. 3 level down to about 2 feet, but instead of that it widened out again to 8 feet. Even if it did not widen further, a 5 or 8 feet reef was quite good enough for him. (Applause.) They had an enormous number of cross reefs in the mine, some of which were exceedingly rich. In the 88 feet level they had cut about 17 of these east and west veins, which ran at right angles to the main lode, and in the main shaft they cut four or five more. All these veins, as far as he could see, would intersect the main lode at about the 400 feet level. The Chairman had referred to the 12 acres of ground which had been secured for the company at a very low price. They had no sooner bought it than it was jumped. The matter was brought before the Warden twice, and he upheld the company's claim, but when the Minister of Mines was asked to confirm the decision of the Warden he awarded the ground to the jumpers. The matter was again taken into Court by the company, and a few days ago a cablegram was received from the manager, saying that the Warden had, for the third time, decided in favour of the company, with costs. It was hoped that this time the decision would not be upset by the Minister of Mines, but if, as they did not anticipate, he decided again in favour of the jumpers, the company intended to appeal to the highest authority, and have the matter sifted to the bottom. The ground was in a first-class position, and there was a strong probability of something being there. He might mention that that 12 acres block, by the time they had got it, would not have cost them more than £100. (Applause.) With reference to the proposed increase of capital, of course they had done an enormous amount of development. They had a really good mine, and with a good supply of water, capable of treating a large quantity of stuff, the mine would soon be in a paying state. They had a fair amount of capital still in hand, but it was necessary to have more. Personally, he would guarantee to take up £2000 of the new issue. (Applause.) They did not propose at present to put up any stamps. Experiments were now being made, and in the course of about two weeks they would know for certain what class of machinery would be most suitable for dealing with the ore. As soon as they decided on the correct method they would push on with all speed to have the mill erected and running at the mine.

The resolution was carried unanimously.

The CHAIRMAN proposed that future annual general meetings be held not later than the end of June in each year.

This was seconded and carried unanimously.

Mr. F. JAQUEMET moved the re-election of the retiring directors, Dr. Trouncer and the Hon. Agar Wynne.

Mr. DIMIER seconded the motion, and it was agreed to.

Mr. WYNNE, in reply, said he believed they had a good mine, and it simply wanted the right class of machinery to deal with the ore.

The retiring directors, Messrs. Cooper Brothers and Co., were also re-appointed.

An extraordinary general meeting was then held for the purpose of increasing the capital of the company.

The CHAIRMAN proposed: "That the capital of the company be increased to £80,000 by the creation of 10,000 additional shares of £1 each, to be issued from time to time, and upon such terms as the board may think fit, and that such new shares shall be offered to all members having European addresses in the register of shareholders in proportion to the number of shares held by them." In explaining the reasons for the proposal, the Chairman read the following extracts from the directors' report:—"The company was formed on November 2, 1894, with a working capital of £22,000, which was entirely paid up. It was then expected that this capital would be sufficient to develop the mine, to erect the necessary machinery, and to reach the period of production. The developments have been so satisfactory that about the middle of last year there was already a sufficient quantity of ore in sight to justify the erection of a big plant, but two reasons rendered it unadvisable for the board to order the machinery. The first one was the enormous cost of transport to Kalgoorlie (Hannan's), so long as the railway to that place was not completed; the second one was the desirability of ascertaining by sinking the main shaft to greater depth whether a sufficient quantity of water would be struck to justify the erection of a stamp battery. The railway to Coolgardie is now open and working, and its extension to Kalgoorlie is expected to be soon completed. The station will be built within a quarter of a mile of the mine. The shaft has now reached a depth of 312 feet, but no increase in the supply of water has taken place. The manager hopes to obtain a larger quantity when the main reef will be reached. The board and their technical advisers, however, do not think this supply will be sufficient and regular enough to rely on using it for the wet crushing process. They have, therefore, under consideration the erection of a dry crushing and concentrating plant, and sending the concentrates to the seaport until the supply of water should be sufficient to treat them on the mine. The board is confident that the shareholders will recognise that it would have been imprudent to order a stamp battery when the supply of water had not been fully ascertained, which course might have entailed a considerable loss. The funds of the company have been used with the greatest economy, and about £11,000 are still in hand. As, however, it is expected that the plant now under consideration will not be in working order for a few months, it is necessary for the company to have, not only funds for the purchase and erection of machinery adequate to the importance of the mine, but also for mining expenses until the plant is at work. Moreover, two-thirds of the surface of the company's claims have not yet been prospected, and as they are covered with a layer of cement and alluvial there is no outcrop showing. With the exception of a north and south drive of about 300 feet at a depth of 70 feet, nothing at all has been done to prove this part of the company's property. Taking into consideration the frequent occurrence on the Hannan's field of parallel lode not far apart, it is quite possible that important discoveries may be made in this ground. In consequence, the board propose to issue at once 5000 shares, and to offer them on favourable terms to the existing shareholders *pro rata*—viz., at the rate of one new share for every 14 old shares. The board do not propose for the present to issue the remaining 5000 shares, but their reason for proposing to increase the nominal capital by £10,000 instead of £5000, is to enable them to take advantage of a favourable opportunity for purchasing some additional property should it occur." He added that the whole of the 5000 shares had been guaranteed at the price of issue for a nominal consideration of 2s. 6d. per share, a fact which he thought was good proof of their confidence in the success of the issue, and of the value of the shares.

Mr. REY seconded the motion, and it was agreed to.

The CHAIRMAN also moved: "That article 128 of the Articles of Association of the company be altered by striking out of the words 'made up to a date not more than three months before such meeting.'"

Mr. T. B. EDWARDS seconded the motion.

The SOLICITOR explained that the reason for the proposal was that it had been found that the time it necessarily took to get the reports and accounts from the colony, and to make any necessary enquiries thereon before they could be presented to the shareholders, rendered the alteration a very essential one.

The motion was agreed to, and the meeting concluded with a vote of thanks to the Chairman and directors.

SHEBA GOLD MINING COMPANY, LIMITED.

An extraordinary general meeting (being the usual half-yearly meeting) of the shareholders in the Sheba Gold Mining Company (Limited) was held on Wednesday, at Winchester House, Old Broad-street, under the presidency of Mr. W. GARLAND SOPER, J.P.

The SECRETARY (Mr. J. E. Booth) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—In accordance with precedent, we are met here to-day, and the directors are again very happy in having the pleasure of looking into the faces of the shareholders. I shall not have to detain you with any lengthy statement, because when matters are progressing satisfactorily, as is the case with the Sheba Company, long speeches are unnecessary. By circular of February 22 the Sheba shareholders were asked if they would like to dine together, with a view to meeting Mr. Blow, the successor to Mr. Hill. Some of the shareholders accepted the suggestion—a suggestion made with the object of giving the shareholders an opportunity of becoming personally acquainted with Mr. Blow. It may be asked why these new arrangements have arisen. Well, the force of circumstances is such that changes occur with mutual regret and yet it may be for mutual advantage. For six years and more Mr. Howard Hill has served the Sheba Company with conspicuous integrity, with unswerving attention, and with great ability. These lengthened services were rendered during a residence at Eureka. After so long and trying a position it seemed to the advantage of Mr. Hill that he should enjoy a change of surroundings which would not be disadvantageous to him personally, and distinctly advantageous to him and his family physically and socially. On the other hand, perhaps, a new comer taking a new view of the situation might be advantageous for the Sheba Company, especially when such a person brought with him the long experience and the high reputation which pertained to Mr. Blow. The arrangement, therefore, is one made in the interests of both parties, and the new departure is taken in the best of mutual feelings. In the name of the directors, and speaking, as I hope you will allow me to do on behalf of the shareholders, I am quite sure you wish to Mr. Hill physical vigour, continued success, and increasing prosperity in the accepted position as manager of the Jumpers Company. (Applause.) I may add that Mr. Blow arrived at the mine on April 17, and although these are early days in which to speak with precision, the directors have every reason to think that he will prove no unworthy successor to Mr. Hill. (Applause.) Shareholders cannot fail to observe that, while on the Rand excitement and unsettlement have prevailed, at the Sheba matters have continued peaceably and profitably. (Hear, hear.) I may say incidentally that in our agreement with our managers it is distinctly laid down that the manager shall refrain from all interference with politics or public affairs not immediately connected with the business of the company—(hear, hear)—and shall use his utmost endeavours to keep all his subordinate officers from any such interference. The mine in its various levels is maintaining its reputation, and the surface works need no special remark, except that the Oriental water race has received the cleansing rendered necessary by the silting, that the cyanide plant at the I.X.L. battery will now be put on a permanent basis, a new contract having been made with the African Gold Recovery Company, and that the electrical plant, according to Mr. Blow's report, is doing splendidly. I have only one other word to add on the question of finance, and it is simply to say that a second 1s. dividend is now declared, and will be paid on July 6 to all shareholders registered on June 20. (Applause.) As you are aware, this is not a meeting under the Articles of Association, but if there be any shareholder who has any question to ask we shall be only too happy to hear that question and to give it an answer.

A SHAREHOLDER: How many stamps are there at work?

The CHAIRMAN: Sixty.

The SHAREHOLDER: Is there any prospect of having any more?

The CHAIRMAN: Emphatically so.

Mr. MARTIN: To what extent can your water power be utilised on the property, and in case that water power is not very extensive, and is not enough to work the required number of stamps, is it possible to work stamps at a reasonable expense with coal in the near future? I should further like to ask whether it would be possible at the next general meeting for you to give us particulars as to the amount of ore actually developed. That is a point which is very often given in connection with other mines, but which is seldom alluded to by the Sheba directors. It would be interesting to the shareholders to know to what extent this good ore is developed, and to what extent you have reserves of poor ore to fall back upon when you have a larger stamping power.

The CHAIRMAN: I understand the honourable proprietor to give notice of two questions. One is as to the extent of water power, and the other as to the extent of good ore, as well as of second grade ore. As to the first, he can satisfy himself by sending on a note to the secretary, asking for a report of the last meeting, at which I went into specific detail concerning the question of the water power, and I have nothing to add to or to retract from that statement. It is extremely full, and I believe it will be found quite accurate. As to the amount of first-class ore, the No. 8 level is now 90 feet wide, and I do not think I can say any more on that subject, for how far it may go into the earth beyond that even the penetration of a shareholder of the Sheba Company would scarcely be adequate to say. As to the second grade ore—if it may be called that—I have a report from Mr. Blow to the effect that there are thousands of tons of 12 dwts ore, which will soon be passing through the second lot of 60 stamps, which he hopes soon to erect. (Applause).

Mr. H. J. PRICE pressed for a definite answer to be given by the Chairman with reference to the question of water.

A SHAREHOLDER enquired whether the 90 feet of ore referred to by the Chairman carried the large percentage of gold which had been attained lately.

Another SHAREHOLDER asked whether 2000 ounces would cover all expenses at the present time.

The CHAIRMAN: I may assure the hon. gentleman who objected to being referred to the secretary upon the question of the water power that, this not being a general meeting of the company, I did not bring all the facts and figures here, the more particularly as I could scarcely have supposed any such question would have been asked, seeing that I dealt with it so fully at the last meeting, and that being the case I naturally concluded that every shareholder was well aware of all those points. As regards the 90 feet, that is the class of ore from which our recent crushings have in the main been taken. As to the expenses, I really do not know that I can answer a question of that kind in the form in which it is put, because the 2000 ounces will require some running out. But we have every reason to believe—and I

think everyone of my co-directors will otherwise be extremely disappointed—that the expenses, the next time we have to meet you, will show a very marked decrease. (Applause).

In reply to a further question, the CHAIRMAN said that as all the shareholders were aware, the Sheba reef ran down, and as the different levels crossed it the face of the reef was exposed. At No. 8 level the reef was now 90 feet wide.

Further pressed by a SHAREHOLDER on the water question, the CHAIRMAN stated that the proprietors might rest assured that there was abundance of water power available for the company's purposes.

The proceedings then terminated.

NEW CONSOLIDATED MINING COMPANY, LIMITED.

The fifth ordinary general meeting of the shareholders of the New Consolidated Mining Company (Limited) was held on Tuesday, at Cannon-street Hotel, Major H. A. JOSEPH, Chairman of the company, presiding.

The SECRETARY (Mr. H. L. Venables) read the notice convening the meeting.

The CHAIRMAN said; Gentlemen—The report speaks chiefly of your Corsican properties. The directors have given effect to the wish of the proprietors, as expressed at the last general meeting in December, 1893, and that was that the properties should be leased to the company called the Olmeta Company. It will be in the recollection of the proprietors who were here at the last meeting that a brother director and myself were very desirous that we ourselves should undertake the work that the Olmeta was to undertake, but the wish and the mandate of the shareholders was this—that as they were to provide the means and to give us half the profits, or we were to get half the profits by a certain number of shares, it would be much better, as they thought in the then state of the financial world, that somebody else should spend the money instead of ourselves. Therefore, since we had the pleasure of meeting you last until now the property has been under other control, and there was not the slightest necessity for calling you together. We had nothing to say to you, and all that would have happened if we had called you together would have been putting you to the expense of some £40 odd, which is the expense incurred in calling a general meeting. In reference to the Corsican property, I still entertain the opinion I have always held, that the property is a valuable one, and that those who wait long enough will see that the property will yield us that something which we have always looked for. With reference to the South Aurora properties, our instructions were not to pay the £70 due for the taxes, as it would be better if the American Government took the mills and whatever was on the property rather than that we should pay the £70 demanded. Whether they have taken what is on the property or not I do not know. I do not think they have; but one thing they cannot take from us—they cannot take from us the freeholds of these properties upon which we have spent so much money. You may naturally say to me, "Why are these properties not worked?" The property is a silver property, but it costs more money to extract silver from the earth in that part of the world than the silver will sell for. If we had worked these properties we should have worked them at a loss; and so also with the Corsican property. Copper has ruled until lately at so low a price that it would have been impossible to make a profit in working these properties. Something, however, has been done there which I shall explain later on, but I may say to you with hope that whereas copper three years ago was at the price of £30 odd, copper was yesterday at the rate of £50. Electricity is the order of the day; electricity makes a demand for copper, and without copper there is no electricity. I hold in my hand the statistics of the copper market, taken from the financial journals. They are for the month of May, and the result is this, that if the product of copper does not materially increase as compared with the large increased demand, in a very short time you will have a copper famine. I quote from one journal:—"Unless supplies from America and elsewhere increase we are confronted with the possibility of a copper famine at the end of the year, since it is estimated that stocks by that time would be brought down to about 17,500 tons, representing only six weeks' consumption." I have to-day taken the statistics of the copper market, and I find that the market price of copper to-day is £50 3s. 9d. for cash, and £50 5s. for settlement; that the sales last week were 3100 tons, whereas the production of European copper has been 120,000 tons for the five months of this year, as compared with 102,490 for the same period of last year. That shows an increase of 18,000 tons. Whereas the product has been 18,000 tons more, the shipments have increased 23,000 tons. The mines have been doing all they can to increase their product, but I think that product has not kept pace with the demand and shipments by a long way. Now, with reference to the balance-sheet, and first, we will take the debit side. I think the board may take credit—and we may thank the secretary—for the clear way in which this balance-sheet is made out. We show you as clearly as figures can set forth how the capital of the company is reduced from 160,000 shares to 123,000. We show you that whereas when we had the pleasure of meeting you last we were slightly in debt to the amount of £193, our present indebtedness is only £10 6s. 9d., of which we have paid £8. That was to a director who had not taken his fees. Turning to the credit side of the account, I think you will agree that we have been as economical as we possibly could. The whole annual expenditure, including the directors' fees and everything, has only been £337 5s. 10d. In 1891, when you first sent me to this board, our expenditure was £1201; in 1893 we had reduced it to £950, and now we have reduced it again. The cash at bankers, when we had the pleasure of meeting you last year, was £365; it is now £1525. I may be asked, and I may, therefore, anticipate the question, why it is that we made a call of 3d. a share, and subsequently another of 6d. a share. The answer is this: that we heard someone was again looking after this company for the purpose of winding it up. The consequence would have been that any liquidator would have made a call, which doubtless would have gone into his pocket, and not have been reserved for the shareholders. The call we have made we have for any advantageous offer that may be made. I regret to say that when we made the first call the shareholders did not answer it so promptly as the directors could have wished, the consequence being that we lost the participation in an adventure which has turned out very well indeed. But, gentlemen, there are as many good fish in the sea as ever came out, and let me assure you, on behalf of the board, that we have never neglected, nor are we likely to neglect, an opportunity that will be for your interest. With reference to your Corsican properties, the expenditure last year was £189 2s. That was an expenditure that was absolutely necessary—for this reason, that we have certain properties to look after. We must keep up our guards and watches there, and we are also obliged to do something at the instigation of the French Government to give us still the right to the land, which they cannot take away from us while we do some little work on the mines. With regard to any property that may be offered to us, and in which we can secure a share, you may rely upon this—that the shareholders shall share *pro rata*. No member of the board will have the slightest advantage that the smallest shareholders has not *pro rata*; and we look to you for support in connection with anything good that is offered to us. You may rely upon this—that as we at this table and our friends hold nearly one-half of the shares in the company we are not likely to go in for anything that will lead us into difficulty, and if we take care of ourselves we will also take care of you, who are in the same boat with us. I will now, gentlemen, formally move the adoption of the report and accounts. (Applause.)

Mr. H. W. SPRATT seconded the resolution, which, after a brief discussion, was carried unanimously.

On the motion of Mr. HALDENSTEIN, the retiring directors—Major Joseph and Mr. Smedley—were re-elected.

Mr. BURBIDGE proposed the name of Mr. H. H. Thompson as an additional director, which was seconded by Mr. LILLEY, but lost.

Messrs. Ogden, Palmer, and Langton were then reappointed auditors, and the meeting terminated with a vote of thanks to the Chairman.

EASTERN RHODESIA GOLD REEFS DEVELOPMENT COMPANY, LIMITED.

The statutory meeting of the shareholders in the Eastern Rhodesia Gold Reefs Development Company (Limited) took place on Thursday, at Winchester House, E.C., Mr. J. MACMILLAN presiding.

The SECRETARY (Mr. W. A. Lack) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—My task on the present occasion is an easy as well as an agreeable one. It is an easy one, because we have simply to tell you what has been done, if anything has been done, with regard to our undertaking, and an agreeable one as it affords the directors and myself an opportunity of meeting the shareholders for the first time, and of making their acquaintance, an acquaintance which we hope will ripen into affection and confidence as time wears on. Our company was started in December last, but shortly after its establishment all undertakings connected with South Africa fell upon evil times. Of course, the disturbance which occurred in a neighbouring country, with that inevitable law of nature which is calculated to disseminate anything which is not, probably, for the best interests of mankind, spread and affected Rhodesia, where we have had for some time past, as you are aware, a most unsettled state of things. The object of our undertaking has been primarily to acquire certain claims or properties in the Umtali district of Rhodesia, a district which, I believe, has the reputation—and we hope it will turn out to be so to the fullest extent—of being the most valuable in that part of the world. We have proceeded slowly, but surely; and we have acquired, or are acquiring, claims, for which purpose the company was established; and, of course, as time goes on we shall not be content with those claims alone, but we shall seek to acquire other properties. But the properties we are acquiring have been inspected and reported upon by most reliable authorities, and amongst those authorities, I am happy to tell you, is Mr. West. Now, Mr. West is with us to-day, and at the proper moment I shall call upon him to offer you a few observations about the country and the prospects generally. We have amongst our claims some very valuable ones. For instance, there is the Western Penhalonga, a district which is so well known that the name itself will convey to your minds, and also to the minds of the outside world, that we have something that is worth having. The other claims, we are told, are equally good; but, of course, we are not a mining company in the sense of working the properties so as to extract that which is underground. We are dealing with them in this way—we acquire these claims on reasonable terms, and, subsequently, we shall turn them into subsidiary companies, or sell them to those who might seek to acquire them on terms as advantageous to the company as we can obtain. We have no doubt that we shall be able to turn our properties to very good account without, of course, the risk that is always attendant on ascertaining and developing the mineral wealth which is actually upon the properties. But we know that to a certain extent all our properties have been tried, and we know as a fact that the gold is there, but, naturally, it requires a great deal more to be done to ascertain the exact quantity. This, however, we know—that every property that is embraced in these claims is a property that is valuable in itself, and that the experts who have examined them state that they are not only gold-bearing, but also gold-bearing to such an extent as to render them most valuable. Now, I do not think I need keep you very long, because there is, after all, very little to tell you except of an encouraging character, and we may, as soon as matters are a little more settled in Rhodesia, be able to see our way more clearly as to how to develop the undertaking and make it a larger one. The state of things that exists now cannot exist very long. We have in the country a man who is capable, I may even say most capable, of meeting any difficulties that may present themselves. I think that with Mr. Cecil Rhodes in Rhodesia—(hear, hear)—all those interested in that country may wake up and feel thankful that they have someone there who will look after their interests, and I have not the least doubt that in a very short time the tide of prosperity will again start; with that tide of prosperity it will be the endeavour of the directors that this company should float, and I am sure that the time is not far distant when it is considered that the affairs of the country are under the direction of so masterful a man as Mr. Cecil Rhodes. I need hardly say, of course, that if any question may be asked me, I shall be happy to answer it, but I ought to premise this with the remark that our efforts up to the present time have been more of a tentative character. We have not called up the whole of our capital and put it away, and kept it until we could see our way clear, but when we require more money we shall go to the public, feeling sure that with the matter we can place before them we shall have no difficulty in obtaining all that may be necessary to enable us to carry on to the fullest extent the development of the company in which we are interested. But you must bear in mind that you will have to wait patiently a little while before we can realise the full fruition of our hopes. I have nothing further to say but to call on Mr. West to address you. Naturally, you will ask who Mr. West is, and I may tell you that he was in the Randt 15 years ago when there were only a few shepherds there. Mr. West has since that time been connected with South Africa, and during his last visit, for he has only just arrived over here, he was Chairman of the banquet given to Mr. Rhodes on his return to that country. So you see Mr. West is a gentleman of some experience, and I am sure you will be more delighted to hear any remarks from him than from me.

Mr. WEST said: Mr. Chairman and Gentlemen—I feel that, perhaps, it falls more within my province to speak as a practical man in regard to your property, I having visited them before I left the country. Each one of them I have seen personally, and, therefore, it affords me the greatest pleasure to say that every word that has fallen from you, sir (the Chairman), I am able to confirm. Your properties, I am sure, are the best that it is possible to secure in the Umtali district. You have, for instance, the Penhalonga claims—27 in all—which include the Somerville, Gallagher's, and Hudson's blocks. They immediately adjoin the Penhalonga Company's properties, and only very recently we received news in London that we had struck the Penhalonga lode at the 470 feet level from the outcrop. But Western Penhalonga is not the only lode which the company need look to to pay those dividends which I feel sure will be paid by, I presume, the subsidiary companies. Miners always have a preference, and for myself I think, perhaps, preference should be given to the north side of the Umtali River. Now, most of your holdings are on the north side, but Penhalonga is on the south. But I think that on the north side the gold—in fact, it is the opinion of all practical mining men in the district—is freer than it is on the south side, and I am very pleased to see you have most of your holdings on the north side of the river. On every one of the holdings you have a good lode, carrying free gold, and giving a very good yield so far as I have been able to judge from the extensive pannings I have made, and the assays which you have had bear me out in my opinion that they are really the pick of the Umtali district. Therefore, I think they will fully justify the promises set forth in the prospectus. In regard to the Umtali district, I should like to point out, or rather emphasise, to this meeting of shareholders that it is, perhaps, the very best district in the whole of Rhodesia in regard to working facilities. (Hear, hear.) As regards wood, water, and the position of the mine, it is unequalled in my opinion, and I have been through the whole of Rhodesia. I have never seen in South Africa a district so well watered. I cannot speak too emphatically on that point. In every direction there are streams, and even rivers, running perennially, never drying up, like many do in South Africa, and that is a great point in the welfare of a mine. And not only that, but many of them have falls, which enable mills to be forced and driven by water power, which is the greatest boon a mine can have. Wood you have an abundance of; and then, again, the configuration of the country lends itself splendidly to mining. To mine in a flat country is proverbially poverty; to mine in a hilly country is prosperity to a mining man. If you drive, you can do it, roughly speaking, at two-thirds the cost you can do it if you have to rise, and Umtali is essentially a hilly district. Therefore, I think you have well chosen your ground for your holdings. The district is well watered and well wooded. In regard to the Penhalonga holdings, it will, perhaps, interest you to know that there has been lately mooted a scheme for the amalgamation of all the principal properties on the Penhalonga range. That range runs for about eight to ten miles, and every inch has been prospected, or is being worked at the present moment. Our 27 claims are right in the middle and next to the principal property. I simply tell you about the movement for you to think about—at any rate, it shows you that your holdings are in a prosperous part of the district. No doubt such a movement is afoot, and I do not know but what it may come forward in a more tangible form a little later on. The properties you hold have everyone of them had development work done on them to a certain extent; in fact, the aggregate amount of work done comes to this—2000 feet of driving has been done, and over 300 feet sunk down, which is a good deal to the advantage of the company, for the simple reason that every one of the properties have already passed that stage when you are able to claim protection for them. You will, therefore, not have to do any further work until the subsidiary companies are floated. That is an important point, for had not the work not have been done already we should have had to have done a tremendous amount of work immediately in order to obtain what in the agricultural sense is the freehold of the property. The Chairman has spoken in regard to the future of the company generally, and Mr. Rhodes' presence there. Well, in concluding my few remarks, I venture to emphasise what he has said. Mr. Rhodes is, indeed, a great factor in Rhodesia. The country bears his name, and I venture to say the country cannot do without him. The Chartered Company may be on its trial at the present moment, but I think it will come through that trial very well. As I had the occasion to say lately in the City, than the Chartered Company you could have no more liberal administration to live under, and no man could be better than Mr. Rhodes as the administrator. If anyone has occasion to go to the Chartered Company for a special privilege they get it, but if you have a more settled Government you will not get things without going through a lot of red tapeism of an extensive civil service. Therefore, I maintain that the Chartered Company is essential to the future welfare of South Africa, and Mr. Rhodes is just as essential, too, as the arbiter of its destinies. I was very delighted to see Mr. Rhodes, although it was no more than I expected, receive such an ovation at Buluwayo. Mr. Rhodes means to develop Rhodesia, and is going to remain there some time. He can command an immense amount of capital, and he can bring that into the country for its benefit; and if he benefits the country you, in like manner, will benefit by it also. Therefore, I hope you will say, with myself, that it is to the great benefit of Rhodesia that Mr. Rhodes and the Chartered Company should be maintained in their present position. Whatever may be said to the contrary in this country, the Chartered Company and Mr. Rhodes still retain their hold on the country. And if Mr. Rhodes intends to develop it, as he personally told me he intended to do, I think we shall have no reason to regret having acquired these properties in the Umtali district. With regard to transportation, Umtali, where your claims are principally situated, is now being connected with the coast by railway. There are 2000 labourers at work, and the railway should reach Umtali either at the end of this year or at the beginning of next year. Mr. Rhodes, when in Umtali the other day, told us that he would have a branch line constructed from the point, Hawse and Taylor's, right through the mining district—that is, right through the Umtali valley. That is a very strong point which I would mention now. The branch line railway will be constructed immediately the main line reaches Hawse and Taylor's, and that should be within the next six or seven months. (Applause.)

A vote of thanks to the Chairman, Mr. West, and the directors concluded the meeting.

YERILLA CLAIMS, LIMITED.

The statutory meeting of the shareholders in the Yerilla Claims (Limited) was held on Monday, at Winchester House, E.C., Mr. H. C. PARKES presiding.

The SECRETARY (Mr. Francis Drake) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This is the statutory meeting of this company, called under the provisions of the Companies Acts. There are no accounts to lay before you. The company was incorporated on February 18, and proceeded to allotment on March 27 last. The capital of £25,000 was entirely signed for on the Articles of Association, and there was no public issue of the prospectus. The total number of shares allotted at the present time is 95,000; the vendors' shares number 70,000, and there were 25,000 shares allotted to the signatories of the Memorandum and Articles of Association. The whole of the latter are available for providing working capital. This company, as I daresay those who read the prospectus will remember, was brought out under the auspices of the West Australian Gold Fields Company, and, by arrangement, after consultation with the directors of that company, the Hon. H. J. Saunders was induced to take the management of the company's affairs in Australia. He has appointed Mr. Stansell to be the mine manager, and, of course, we have reports periodically from both gentlemen. The property comprises 62 acres, situated about 100 miles north of Coolgardie. I think the better way for me to inform you as to the present position is to read the last cablegram we received from Mr. Saunders. It is dated June 4, and is as follows:—"Manager reports the property comprises 61 acres, lease 800; trenches and outcrop easterly line reefs disclose excellent gold-bearing quarts, 2 feet thick; shaft sunk 10 feet; further shaft sunk to a depth of 20 feet for the purpose of cutting into parallel reefs to above. This reef from the surface down to 40 feet along underlay shaft shows gold ore. Expect to strike a reef at a depth of 90 feet. At the junction of leases 800 and 801 the shaft has been sunk 100 feet.—Lease 801. There are four shafts on the mine; two carry gold. Intend to sink a shaft further west for the purpose of cutting ore at depth. Third shaft has reached a depth of 104 feet; carries very rich formation for 25 feet, then passes to the west. At a depth of 90 feet struck fresh water. There are 4800 gallons of water in 24 hours. A well has been put down 101 feet. Crosscutting east-west, in view of cutting into very rich stone. Fourth shaft has reached a depth of 85 feet, sunk for the purpose of cutting into the juncture of the two reefs. Lease 802—Shaft sunk 102 feet on the line of Famous Queen of the Earth reefs. At a depth of 80 feet have cut a vein carrying payable gold. There are 1900 gallons of water in the 24 hours. Have vigorously proceeded with the workings and development of all workings. Lease 801 shows lode formation; leaders mixed up. Present supply water saves as much as £20 weekly. There are strong indications that reefs live down, and the deeper down the richer the ore; also water, ample for all demands, will be obtainable. Leases in the immediate vicinity have obtained payable gold to a depth of 130 feet. The transfer of the property in the hands of solicitors; am doing my utmost to expedite matters; will telegraph again immediately the transfer of the mine is effected. Leases registered in the name of company." I think that cablegram can only be considered very satisfactory, especially as regards that very sore point of water. We seem to have an ample supply of water for this mine. As regards the transfer of the property, a cablegram was received from the company's solicitors this morning:—"Backhouse will be here on Tuesday. Will complete." Our solicitors advise us that that means that the transfer will be absolutely completed to-morrow. I may say that a consider-

able quantity of winding and pumping machinery has been ordered, and an engine and mill are being sent out; it is expected they will be shipped early next month. Through the foresight of the West Australian Gold Fields Company, arrangements have been made for obtaining very early information with respect to this property by means of an expert cyclist. I do not think I can tell you any more, but if there are any questions you would like to ask, I will do my best to answer them. I am requested to inform you that the scrip is ready for delivery in exchange for receipts.

No questions were asked, and the proceedings then terminated.

WEST AUSTRALIAN TRADING SYNDICATE, LIMITED.

The statutory meeting of the West Australian (Gold District) Trading Syndicate (Limited) was held on Thursday, at Winchester House, E.C., Mr. L. H. GOODMAN, the managing director, presiding.

The SECRETARY (Mr. Hugh Bernard) read the notice convening the meeting.

The CHAIRMAN, in the course of his speech, detailed the actions of the directors since the company came into existence, and read extracts from the prospectus, all the statements in which, he said, he and his co-directors stood by in their entirety. The prospectus had been described by a writer in the Press as a "cheeky" one. However that might be, he had, at any rate on this occasion, to announce that they had "a little bit of sugar for the bird." (Laughter and applause.) In the prospectus it was stated:—"This syndicate has been formed for the purpose of opening establishments and branches, and to organise a powerful connection in the import and export markets in the colony of Western Australia, with the ultimate object of forming a large trading corporation upon similar lines. The principal business proposed to be conducted by the syndicate, and subsequently by the corporation, is that of general merchants and traders, carriers, import and export agents throughout the gold mining districts and in the principal ports of Western Australia, to meet the growing requirements of a practically new colony. It is the intention of the syndicate to form the corporation with a capital sufficiently large to enable it to take first rank amongst the mercantile and trading circles operating between Europe and this colony. It is hoped that this syndicate, which will be in the dual position of pioneer and parent to the corporation, will, by the sale of its goodwill, connections and branches, reap very handsome profits, which will be distributable to the syndicate shareholders, either in cash or in shares of the proposed corporation, at their option. The opportunities of legitimate commercial enterprise in this region have been hitherto greatly overlooked by the investing public in their haste to share in the wealth which the mining industry will undoubtedly yield, but, while in no way wishing to deny the practicability of their so doing, this syndicate would point out the absolute security which is attainable through the channels of trade which must follow the influx of the enormous amount of public capital which is being poured into this region, and its continual increasing yield of gold." In this connection an interesting return had come under his notice as to the capital embarked in the gold industries of Western Australia during the last four years. He questioned whether four years ago there was a gold mining property in that country that was paying a dividend; to-day there was one property alone which had paid in dividends £200,000, which more than equalled the amount of its capital. The fact that 50 millions sterling—9-10ths of which had been subscribed by the British public—had been put into West Australian mines, was some evidence of the strides which the mining industry had made there, and of course a trading company like theirs must benefit proportionately. A mining camp could not be made a success unless the miners were supplied with the necessaries of life—such as food, tools, clothing, tobacco, and drink—not necessarily strong drink, but at any rate water, of which they had been very short. Until within the last few days they could not claim to have sprung a well of pure water, but now they had done so, and were in a position to boast of having 300,000 gallons daily in Coolgardie alone. The prospectus further said:—"It is the intention of this syndicate to establish depots at all outposts, and to be ready to push its wares and supplies by means of its own caravans and stock trains to the scene of the new discoveries, and will endeavour always to be the first on the spot to enjoy the double benefit of securing the best market and of treating for valuable concessions first hand. By a studied system of communication throughout the interior, this syndicate will be the direct agents of easy transport, and the pioneers of cheap supplies to the mining districts." Some question had been raised by the writer in the Press to whom he had referred as to his (the Chairman's) qualification as managing director of a trade syndicate, but he thought he had satisfied him on that point. He had been for 14 or 15 years associated with one of the largest trading firms in London, merchants supplying preserved provisions and all the necessary food for miners. His firm were doing a very large trade, and finding they were unable to meet the requirements of the population of the colony, he called his friends together, who readily responded to the suggestion he put before them. He had now to congratulate them on the success the syndicate had made during the short time it had been in existence. He pointed out to his friends that the Government had invited traders to come to their colony, and promised every facility for their operations. That they had done so was demonstrated in the case of this syndicate by the fact that the Government had given them sites on which to erect their public batteries, and free grants of water for working them. They had now five sites on which to erect their public crushing plant. They had chosen the crushing machinery known as the Krom rolls, the working of which, with quartz from 20 different mines, he had personally inspected. In a few days one of their batteries would be on its way to Coolgardie, and the other four would follow at the earliest possible moment. They anticipated making a considerable income from the at source alone, as they would be in a position to crush 40 to 45 tons a day. With regard to the goods they were shipping, they would make arrangements that all their goods should bear the syndicate's label. He had been three times round the world, and seen a great deal of camp life, and he was sure that men who had had half his experience would appreciate his view when he said that the least they could do in the old country was to send out to the colonies food that was thoroughly good and wholesome. (Hear, hear.) He believed, moreover, that was the best guarantee they could have of success. In connection with their shipments they had been fortunate enough to secure the sole agency from a number of the most reputable trading firms in this country—and abroad, he might say, for they had shipped goods from San Francisco to their depot at Perth. They would, of course, receive handsome remuneration in respect of their agencies. In one case they received £600 a quarter, and they hoped to make an annual profit of many thousands from the sole agency of an important firm in the beer trade. He was not free to mention the name of the firm, but they might take it that it was a household word. They had, in fact, secured the best, and had had what was practically an offer from the second best. (Applause). Under their Memorandum they had no power to trade in anything of a speculative nature. They were traders for profit, and had, in fact, shipped very little that had not been previously ordered. With regard to himself, he held 6500 ordinary shares and his proportion of founders' shares, and these would remain registered in his name until the shareholders gave him permission to sell them. (Applause.) There was no pooling in this syndicate, and they had a perfectly free market for their shares on the Stock Exchange. Although their capital was only £20,000, it was represented by £30,000 on the market to-day—(applause)—and they had received an unofficial intimation that the Stock Exchange would grant them a special settlement within a few hours. (Hear, hear.) They had received a cablegram stating that water [illegible] had been secured for the White Feather Mount Margaret, Kalgoorlie, Kanowna, and Menzies districts, and the syndicate were arranging to open stores in the last-named township. Shareholders would understand that the company could not go on with its extensive operations with the limited capital which they had at present. The almost undreamed of success they had met with would necessitate the directors calling the shareholders together at an early date and submitting a proposal for largely increasing the capital. He was advised to suggest a capital of about £500,000, nearly one-half of which would be guaranteed. (Hear, hear.) The Chairman then quoted Board of Trade statistics showing in the last 12 months there had been an increase of 51 per cent. in the trade of the colony over the previous year, and that the present trade turnover per head of the population was £55 14s. 8d., and he remarked that this shows the extensive field there was for the company's operations. With regard to the options which the directors had under consideration, one was a timber district of 24,000 acres within 40 miles of the coast, the timber being of a description for which there was an unlimited demand in London for street-paving purposes. They had also a number of options in town plots in new townships, but not as many as he should have liked on account of the smallness of their capital. They had already shipped some £60,000 worth of goods, and he had given his personal guarantee to the manufacturers and others to the extent of about £40,000. Banking agencies and others had shown a perfect readiness to assist them. He suggested that the shareholders should take the fullest advantage of investing in the new corporation when formed. They would be entitled to take cash or shares, or partly in each, but he should take his holding in the latter. He now came to the "little bit of sugar," which took the form of the declaration of an interim dividend for the first three months at the rate of 100 per cent. per annum. (Applause.) They were in a position to pay a dividend many times that amount, for they had made profits equal to more than twice the amount of their capital of £20,000, and that had been done within two months. In conclusion, the Chairman expressed his firm conviction that we were on the wave of the greatest prosperity ever known, and he expected to see this undertaking well to the fore, and reaping its full share of the prosperity. (Applause.)

Sir EDWARD LEE proposed a hearty vote of thanks to the Chairman, remarking that the results shown by the company in the short time during which it had been trading were simply phenomenal. As a director he knew of one successful deal, by which a profit of £6,300 had been made, which of itself was more than sufficient to pay the present dividend, but which was only one of many such items. (Applause.)

This was unanimously accorded, and the proceedings closed with a similar vote to the secretary and staff, proposed by Major-General A. TULLOCH, and seconded by Mr. ROGERS.

WHEAL AGAR.

The shareholders in Wheal Agar met on Monday to receive the report of the committee upon the negotiations for the sale of the mine to the shareholders of East Pool, and to approve the terms of the reference contemplated by the resolution passed at the last meeting.—Mr. A. L. HATTERSLEY presided.

Mr. HENRY GRYLLS, solicitor to the company, explained that Wheal Agar as a Cost-book mine was unable to sell its mine except by public auction without going through certain formalities, the chief of which was that the company should be placed in the hands of liquidators as a registered unlimited company. Before the authorities in London would register the company it was necessary for the rules and regulations to be fixed, and Wheal Agar was in the position of most Cost-book mines in not having such rules, and those had now to be passed. The negotiations with East Pool had not been of a particularly easy nature. In the ordinary sale of any property, where both parties were willing, there ought not to be any difficulty, but such simple conditions had not been obtained because they had a third party to deal with essential to the transaction. He referred to the lord of the mine. The draft agreement had been handed to East Pool Committee, but Mr. Rogers had made certain alterations. The principal differences between them now were as to whether Agar should nominate their arbitrator before the agreement was signed; Agar having declined to nominate until it had been signed; and a further difference was as to whether East Pool should take possession at once on the signing of the agreement, Agar having offered to allow them to work the engine, but declined to allow possession until after the arbitration, and the completion of the bargain. Mr. Grylls said he met East Pool committee on the mine on Thursday, but was unable to make any way. It was stated at their meeting with East Pool representatives and Lord Robartes' solicitors in London that his lordship would not insist upon his right of pre-emption; but in the terms agreed to between East Pool and Lord Robartes it was stated that failing the Agar shareholders being willing to go on working the mine and unwatering it, his lordship would himself exercise his right of pre-emption for the benefit of East Pool. They were thus in this position—that they must either agree to Mr. Roger's alterations in the draft, or he must give way; they must take the mine into their own hands, and work it for themselves, or Lord Robartes would come in and take their machinery, and hand it over to East Pool at a valuation; that was such parts of the machinery as he might think proper. Although that was strictly within his lordship's right, it was hardly the position one expected him to take. He had written to the solicitors expressing surprise, but they replied that Lord Robartes was acting simply for the good of the district. Since he had been in the room he had had a letter from Mr. Rogers, in which he said that East Pool committee had been there for some time. On Agar shareholders passing the necessary resolutions that afternoon with an intention to confirm them, East Pool would be quite prepared to continue working the engine, and in other respects to honourably carry into effect the sale by reference.

The CHAIRMAN said he was surprised at the action of Lord Robartes, because whenever he had talked to him he had been perfectly sensible of the losses the shareholders had sustained, but he wanted the work to go on for the benefit of the neighbourhood. East Pool had said they did not want Wheal Agar, and would not work the sett. How would the district, then, be benefited? He did not feel satisfied to be trodden down in that way, and would rather lose every shilling he had put in it than be done again. He would not let them have possession or anything until the agreement was signed; he would not trust them a shilling.

Mr. W. H. BURT proposed a resolution confirming the action of the committee approving of the draft agreement as submitted to the solicitor of East Pool, and authorising the purser to execute it with any modifications which the committee might approve.

Mr. A. ROWE seconded, and the resolution was carried, only Mr. Bray voting against.

An invitation having come from East Pool committee for the Chairman and Mr. Grylls to meet them, the meeting adjourned to enable a conference to take place.

At six o'clock the Chairman and Mr. Grylls returned, and Mr. GRYLLS said he believed East Pool committee had given way in everything after a long struggle. The only clause in which there was any difference was as to the agreement to work the engine from that time. He (Mr. Grylls) had said in the draft agreement that East Pool should take it upon the same terms that Mr. Strauss was working, but it was ultimately agreed that they should take it on those terms with the addition that they should have the express assurance—which Mr. Strauss had practically had—that they should be able to dictate the number of strokes the engine should work, but as they were liable for all breakages he saw no objection to that.

The meeting concluded with a vote of thanks to the Chairman.

EXPLORATION COMPANY (LIMITED).

An extraordinary general meeting of the shareholders in the Exploration Company (Limited) took place on Tuesday, at the Cannon-street Hotel, for the purpose of confirming the resolutions passed at the meeting held on June 1, providing for the amalgamation of the company with the Transvaal and General Association (Limited) and the West Australian and General Association (Limited).—Mr. F. A. Lucas, who presided, formally moved that the resolutions be confirmed, remarking that Sir Horace Farquhar went so fully into the matter on the previous occasion that it was quite unnecessary for him to explain the matter again now.—Mr. Parrish seconded the resolutions, and they were unanimously confirmed.—Afterwards a meeting of the shareholders in the Transvaal and General Association (Limited) was held, when similar resolutions were submitted and confirmed.—This was followed by a meeting of the shareholders in the West Australian and General Association (Limited), when, after the same resolutions had once more been confirmed, the Chairman also moved a resolution to the effect that the liquidators be authorised to distribute in specie among the contributors of the company 100,000 shares in the Sulphide Corporation (Ashcroft's process). He explained that for every two shares in the West Australian and General Association, the shareholders would receive one fully paid up share in the Sulphide Corporation. This would either be in the nature of a distribution, or in the nature of a dividend, whatever the individual shareholders chose to call it, but in any case the sum would be a substantial one, in view of the fact that the shares now stood at considerably over par. Practically, it was equivalent to over a 10s. dividend on each £1 share. In regard to the prospects of the Sulphide Corporation very satisfactory information had recently been received as to the properties held by the Company in Australia.—Mr. Parrish seconded the resolution, and it was carried.—A vote of thanks to the Chairman, who, in reply, considered that the new company would prove to be a very powerful and successful corporation, concluded the meeting.

STRAITS DEVELOPMENT COMPANY (LIMITED).

An extraordinary general meeting of the shareholders in the Straits Development Company (Limited) was held on Monday, at Cannon-street Hotel, when Mr. A. Gaussen, who presided, stated that the framers of their Articles of Association made provision for the conversion of their capital into preferred and deferred shares on June 30 next. This June 30 was merely a fancy date, but it remained for the shareholders to decide whether this proposed alteration should take place, or whether this conversion should be postponed. Two valid reasons occurred to his mind for the suggested postponement—the first being economy, and the other avoidance of any possible complication or confusion in the future. The board had not asked for proxies, but several had been received. He concluded by moving:—"That Article 11 of the Articles of Association of the company be altered by substituting for the words 'on the 30th day of June, 1896,' the words 'as soon as all the issued shares for the time being of the company shall have been paid up, or credited as paid up.'"—Mr. E. Coates seconded the resolution, and it was carried unanimously.

CARATAL MINING COMPANY (LIMITED).

An extraordinary general meeting of the shareholders in the Caratal Mining Company was held on Monday, at Winchester House, E.C., Mr. Alfred Bull presiding.—The meeting was called for the purpose of passing a resolution removing Mr. W. P. Sutherland from his office as director, and for other business.—The Chairman said that as the first part of the business was a rather unpleasant one, he would be glad if a shareholder would undertake that duty.—Mr. Rowe then moved that Mr. W. P. Sutherland should be removed from his office as director.—The resolution was seconded and passed, with only two dissentients.—Mr. Sutherland afterwards attempted to address the meeting, but he failed to obtain a hearing.—Subsequently the shareholders proceeded to elect a new board, Mr. Sykes having resigned, and Mr. Walker having also signified his wish to retire.—Two of the old members (Mr. Bull and Mr. Shackel) were re-elected, with the addition of Sir Henry C. J. Banbury and Mr. Banning.—The meeting then terminated.

INDIAN AND COLONIAL GOLD FIELDS (LIMITED).

The statutory meeting of the shareholders in the Indian and Colonial Gold Fields (Limited) was held on Tuesday, at Winchester House, E.C., when Sir Joseph Savory, who occupied the chair, said he was not in a position at such an early stage to go into details of the company's operations, but he was glad to be able to tell them that although less than four months had elapsed since the inception of the concern, their work, up to the present time, had been extremely successful. Everyone of the directors had taken exceptional pains to promote the success of the company, and he hoped at no distant date to be able to call the shareholders together and announce a substantial dividend. The number of shares allotted was 125,000, on which 10s. were paid up. They had appointed agents in Australia and India, and contemplated appointing one at Johannesburg, as it was very important that they should be in a position to obtain practical and unique information as to the prospects of the mines in these countries.—One or two questions having been asked by shareholders, and satisfactorily answered, the meeting terminated.

UNITED AUSTRALIAN EXPLORATION (LIMITED).

An extraordinary general meeting of the shareholders in the United Australian Exploration (Limited) was held on Thursday, at the offices of the company, No. 19, St. Swithin's Lane, E.C., for the purpose of confirming a resolution to the following effect:—The following articles shall be inserted after Article 128:—128a. The company may cause to be kept in any colony in Australasia in which it transacts business a branch register of members resident in such colony.—128b. Subject to the provisions of the "Companies (Colonial) Register Act, 1883," and to the foregoing provisions, the directors may from time to time make such provisions as they think fit respecting the keeping of such branch register.—The Chairman (Major Ricarde Seaver) formally moved the resolution.—Mr. Marshall seconded, and it was agreed to.—The meeting then terminated.

PACCHA AND JAZPAMPA NITRATE COMPANY (LIMITED).

The annual general meeting was held on Tuesday, at Winchester House, Mr. J. J. Smith presiding.—After expressing great regret at the death of Colonel North (the late Chairman of the company), the Chairman moved the adoption of the report, remarking that there had been a loss on the year's working of £27,298, and, after deducting the amount brought forward, a balance of £15,317 remained to the debit of profit and loss account. The loss on manufacture had been £10,250, the balance being made up by the loss on consignment. He hoped that there would be no recurrence of the loss on sales, and there would not be if he had any voice in the matter. The long-wished-for combination had now been settled, and, although the anticipated improvement in prices had not as yet arisen, he had no doubt that this was only delayed in consequence of the large stocks of nitrate at present on hand. They had every reason to believe that the selling price would advance, and that they would be able to make good profits. The profit on exchange during the year was £8306. A large number of oficinas had availed themselves of their option to work on trial for three months from March 18 last, in order that their annual quota of manufacture might be determined. The stocks of nitrate and cargoes afloat had been taken at their probable selling value, but the iodine had been taken at cost price.—The motion having been seconded, a long discussion followed, in the course of which considerable dissatisfaction was expressed at the report, and an amendment was proposed in effect rejecting it.—The Chairman, in reply, at the close of the discussion, stated that the directors had received no fees for their services, while they had had a very anxious time. He strongly denied, on the part of his colleagues and himself, that any speculation had been engaged in by them in the company's shares; the board had done nothing to influence the market in any way. The company's financial position would not allow them to keep large stocks in hand, and if they had closed the works they might not have been able to obtain the labour when they had to resume operations. The current year's working had been better, and he hoped they would be able to submit a more favourable statement at their next meeting.—The amendment was eventually withdrawn and the original motion was subsequently adopted.

WAIHI GOLD MINING COMPANY, LIMITED.

The ordinary general meeting of the shareholders in the Waihi Gold Mining Company (Limited) was held at Cannon-street Hotel yesterday, under the presidency of Mr. THOMAS RUSSELL, C.M.G., Chairman of the company.

The ACTING-SECRETARY read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen—At our previous annual meetings it has been my good fortune to meet you with good news. The year 1895 has closed with a satisfactory record, the present year finds us in the best position we have had, and everything in connection with the mine points to a long continuance of prosperity. The history of the mine for 1895 was more full of interest than usual, and called for a longer report from the directors; but still, there remained much interesting information which could not be embodied in a formal report, without making it unduly long, and it is my duty and pleasure now to direct your attention to it at greater length. While endeavouring to do so we must bear in mind that our share list is constantly extending. Every month we have new shareholders who do not know the past history of the mine, and if in my speech to-day I repeat things some of you already know you will understand my reason for so doing. Before last year the funds for opening out the mine were limited, and such only as could be spared from profits; the process was slow, and altogether inadequate to the magnitude of the undertaking; it was also unfair to the present generation of shareholders. But early in 1895 the shareholders wisely placed considerable funds at our disposal for more forward works, and we have taken active steps in that direction. The results, as far as we have gone, have been remarkable and satisfactory, while the outlook for the future is equally good. My object to-day is to describe the most important results of the recent developments and the works now in hand, and in as brief a manner as I can to give you a clear view up to date of the mining and milling position at Waihi and the new reduction works. The principal points of interest connected with the recent developments and the general works in the mine are:—(1) The No. 2 shaft. This is a new shaft, and is situate about 600 feet to the west of No. 1. The No. 1 shaft contains the present pumping and winding plant, and the levels Nos. 1 and 2 of the mine have been opened from it. It has been sunk to a depth of 231 feet. Sinking was stopped in the No. 1 shaft on account of the softness of the ground and the fear of meeting with more water than the present pumps could control, but sinking will be resumed in it later on when the new pumping plant has been fixed at the No. 2 shaft. The situation of the No. 2 shaft is more central, and will supercede No. 1 shaft for pumping purposes. The No. 2 shaft is a first-class shaft in every respect, and is intended for the main pumping and winding plant of the mine. It has been sunk to a depth of 330 feet; the work of sinking has been stopped until the large engine and pump and the winding engine are placed in position. As soon as this machinery is fixed sinking will be resumed in both shafts, and levels driven at regular intervals to communicate with the lodes. The machinery on the No. 2 shaft has been specially designed to meet all possible requirements, and consists of a powerful engine manufactured by Messrs. Hathorn Davey and Co., of Leeds, designed to work a set of pumps (manufactured by the same firm) capable of lifting 1000 gallons of water per minute from a depth of 1000 feet; and as this is very much more than the quantity of water we are now lifting by our pumps in the No. 1 shaft, we have no doubt of its efficiency for every emergency. A suitable winding engine, designed by our superintendent, Mr. Barry, for this No. 2 shaft has also been sent to the mine. You will see from the magnitude of these preparations, and the power provided in connection with them, that the directors are preparing on an adequate scale for still more extensive developments of the mine below the present levels. (2) The next important work in which we are now engaged is the exploration of the lodes in the new levels 1 and 2. The No. 1 level is 80 feet below the adit level, the No. 2 level is 70 feet below the No. 1 level and 150 feet below the adit, the adit level being 260 feet below the highest point of the Martha Hill. At the time when we held our last annual meeting we were driving a crosscut from the No. 1 shaft to cut the reefs in the No. 2 level. We had then 146 feet to drive to the Welcome lode, and I remember stating at the meeting my firm conviction for the reasons I then gave of the quality and the value of the lodes we expected shortly after to cut in that level. The lodes in the No. 2 level have come quite up to, and in some respects have exceeded our expectations. The first lode met with in the level was the Welcome reef, which was cut at a point where the branch of that lode parted from the main Welcome lode in its course towards the Martha reef. The mine manager, Mr. Gilmour, described the reef at this point, and its value. I prefer giving his description of it in his own words to my own. It is as follows:—"At a point, 323 feet, the Welcome lode was met with, which, on driving through at nearly right angles, has proved to be nearly 31 feet wide from wall to wall. At a distance of 20 feet through a small 'horse' of sandstone, intermixed with quartz veins about 3 feet in thickness, was passed. The ore has a very kindly appearance throughout the entire width, excepting a few feet at 'horse' referred to, which was of low grade. Taking the 10 general samples assayed as the drive advanced, the general average gave gold 1 ounce 6 dwts., silver 4½ ounces per ton." (Applause.) At a further distance of 22 feet the Martha reef was cut. During the year the developments upon the Martha lode in both levels have been very satisfactory. From the surface downward the section of the Martha reef known as the "Blow" is the widest part of the lode and is uniformly good from wall to wall. In some of the upper levels it was 60 feet wide. In the No. 1 level it is 36 feet wide, producing first class ore to the full width of the lode.—No. 1 level. In this No. 1 level the lode has proved to be good east of the crosscut right through to the old surface of the Martha Hill; the stopes upon it extend a total distance east and west of the crosscut for 850 feet—one of the leading stopes upon it is 372 feet long and averages 20 feet in width throughout, and east of the Britannia winze this leading stope for its whole length averages 22 feet in width. The Martha lode in the No. 2 level maintains the general character developed in the No. 1 and upper levels. In this No. 2 level at the crosscut from the shaft the lode was 18 feet in width, and was described in the official report, made at the time, as "carrying as good or better gold than ever." 13 feet of it averaged over 1 ounce of gold to the ton, the whole width averaged 16 dwts. At the date of the mine manager's annual report the drive in this level had not reached the "Blow," but in April last, two months ago, the mine manager advised: "The western end has been advanced 56 feet, total length from the crosscut 243 feet, the face is now in the centre of the 'Blow' lode of large size and of usual good quality." (At that time they had evidently not cut through it to ascertain its width.) The eastern end had been driven 105½ feet from the crosscut, the reef was 24 feet in width—the total drives on the lode at this level at date of last advices being 348½ feet. No stoping has been done upon the Martha reef at this level. The May letters received yesterday carry our information a little farther, and the manager writing, says:—"Eastern end has been extended 101 feet. Lode 18 feet wide at face, giving ore of a good quality from 6 feet in width on either side. Centre for 6 feet composed of low grade," and "western end has been advanced 19½ feet, total from crosscut 262½ feet. Six feet back from face a crosscut has been run through from wall to wall, proving the lode to be 51½ feet in width, showing ore of a fair class. Owing to the lode being of such large size and the level being driven too close to footwall, I had to bring the contractors back some 50 feet, and carry the level more in centre of lode." In pursuance of our policy of exploring the mine throughout we have continued the main drive in the No. 1 level westward; at the date of the last advices we had driven about 450 feet beyond the stopes, through low grade ore varying from 2 to 8 dwts. per ton, with occasional patches of payable ore. We shall continue this drive to the boundary in daily expectation of cutting better ore; there is good ore overhead and good ore also in the Nutt section of the mine still further ahead, about 500 feet in advance of the drive. In the Nutt section of the mine the country rock is good, and there is strong reason for believing that we shall meet more payable gold in this section of the lode before we reach our boundary, which is about 1400 feet from the present end of the drive. The developments upon this great lode downward to the No. 2 level for a depth of 400 feet have continued to expose huge masses of payable ore. It has lost none of its permanence and strength in depth and near its widest and richest parts; it has shown a width in various parts of the mine of from 36 to 70 feet in the No. 2 level. In this section of the lode it is 51½ feet. The lode in every part of the mine continues large and strong; its direction and underlie are unchanged. It has all the characteristics of a master lode, which shall continue downward and run through the mine north and south and for a considerable distance through the surrounding country. I come now to the most recent and important matter in connection with the developments of the year, those upon the Welcome lode, and at the risk of wearying you I wish to describe this remarkable lode which has added so much to the value of the Waihi Mine, and which promises to enrich it still more. It is very remarkable and most interesting. You will see from the plan its position in relation to the Martha lode, that at the north-eastern end it is parallel with the Martha and about 20 feet to the east of it; then you will notice, at the point where we cut through it, a branch goes off from the main Welcome lode at an oblique angle until it junctions with the Martha lode. The main Welcome lode from the point where the branch leaves it continues its course, bearing away gradually from the direction of the Martha lode, and if it continues its present course, will traverse the centre of our ground towards the south-east. (3) Works upon the Welcome lode and its branch. From the time we cut this lode in the No. 2 level in June last and up to the present time we have driven upon the Welcome lode and its branch for 644 feet, and in the face at present is worth £7 15s. per ton. (Applause.) Its average width throughout the No. 2 level is 12 feet. Up to the present time we have driven upon it in the No. 1 level for 1130 feet, and its average width in that level is 9 feet, and its present value in the face of the drive is £8 7s. 6d. per ton. (Renewed applause.) Up to the present time we have driven upon it in the adit level for 1039 feet, and its average width in that level is 6 feet. You will thus note that its average width has increased in each level downward by 3 feet. In the adit it is 6 feet wide, in the No. 1 level it is 9 feet wide, in the No. 2 level it is 12 feet wide. It is not so hard to break, and is more easily and cheaply mined than the Martha lode. Its average value in all three levels is £3 18s. 10d. per ton. Some parts are richer than others. There is, however, one remarkable feature in this unique lode—none of it is waste ore; it all goes to the mill, and it is payable throughout the mine. One of the latest pieces of information we have respecting this lode is that in April last, while sinking an air shaft from the surface for ventilating purposes, and to meet the lower levels in course of being driven, the top of the Welcome lode was cut in the air shaft, and was worth 13 dwts. of gold to the ton. This was the cap of the reef, and was met at a point 345 feet west of the No. 2 shaft and about 300 feet ahead of the face in the drive on the lode in the No. 2 level, thus showing that this Welcome lode maintains its quality as a payable gold-bearing lode, considerably in advance of our present works, and, looking to the kindly and favourable character of the country rock which exists in the Waihi property right through it and up to our western boundary, which is quite 1500 from our present works, upon the Welcome lode, it is more than probable this great lode will retain its gold bearing character for a considerable distance further forward, if not indeed quite to the boundary. The branch of the Welcome lode I have before described underlies towards the Martha lode, and if it continues the same underlie will junction with the Martha lode in the No. 3 level and the Main Welcome lode itself for several hundreds of feet from the junction with the branch has a slight underlie towards the Martha reef. But several hundreds of feet westward from the junction it becomes perpendicular, and from that point in its forward course through the property the underlie is changed to that of the Martha lode, and as far as driven upon maintains this underlie, pursuing its course through the eastern section of the mine several hundreds of feet apart from the Martha reef. The Welcome lode has already, in my opinion, more than doubled the resources and value of the Waihi Mine. In the direction it is taking it is about 1500 feet from the boundary. It continues strong, of great size and good quality, and should it continue its course through the mine without interruption—and there is no reason why it should not—it will be difficult to estimate the additional value it will add to this already remarkable property. The Welcome lode and its branch, except the small quantity stoped out as shown on the plan below the adit level, is intact throughout the mine; the sectional plan of the lode will give you a faint idea of the quantity of payable stone it has added to our immediately available resources, and of the quantity we are daily adding to those resources by the numerous drives and works we have in hand upon it.—Surprise. The latest point of interest in connection with the developments now going on we have just learned by telegram from the superintendent of the mine. There is a considerable distance (nearly 300 feet) between the Martha and Welcome lodes at the extreme point at which we are now driving. The mining authorities at Waihi are driving a crosscut between these two lodes with a view to prospecting the large piece of country lying between. In this crosscut and at a distance of 240 feet from the Martha they have cut a new lode 2 feet wide, the average assay value of which is £7 17s. 6d. per ton. This lode is called the "Surprise." From this you will thus see that we have not come to an end of the new lodes in our property, and, judging by the experience of the last twelve months, I feel sure before we have finished exploring the large area of the mine still unexplored other lodes will be found. I think I have shown conclusively the abundance of our ore reserves, and the prospect of still further large additions to them. At our last annual meeting I said:—"The Waihi question at the present time resolves itself into one thing only, and that is the problem of increasing the outturn of pulverised ore." With the light of 12 months' further knowledge I repeat this to you now with greater emphasis. I promised you then that we should not leave this question until we had got as far towards its solution as we thought it possible to get. We have not left it, and shall not; and I proceed to tell you what we have already done in this direction, and what we are now doing.—Waihi Mill. During the year we increased the battery from 60 to 90 head of stamps, and this increase of crushing power helped our returns for a part of the year only, and not to the full extent we had anticipated. The last New Zealand winter was unusually cold and severe; during part of it the severe frost hindered the percolation of the cyanide solution. The summer following was extremely dry; such a dry season had not been met with at Waihi since we have been mining there. The water in the races fell unusually low, and the steam power at the mill was provided for 40 head of stamps only, and was not equal to the duty required of it during the drought of last summer, and our returns suffered in consequence. I mention these facts, though they are stated in the report, in order to tell you that we have taken the most energetic steps to prevent a recurrence of this difficulty. We are sending out an engine of 350 horse-power, with corresponding boiler power for the present 90 head of stamps, and we hope to have this powerful machinery in position by December, next before the dry weather sets in. Our new mill on the Ohinemuri River will, we hope, be ready in February next. We are putting up now 100 head of stamps, but full power is being provided for 200 head, and the plans are so arranged that we can add another 100 head very quickly if we decide to use stamps for the remaining power required. We are now engaged at Waihi in an interesting experiment with Krom Rolls. If we succeed in utilising Krom Rolls for crushing Waihi ore we believe we shall increase the output very much, and until that question is determined we shall only complete 100 head of stamps at the new mill. The new mill will contain all the latest labour-saving appliances, and I am hopeful that by treating the ore there upon a large scale, and with all the advantages I have referred to, including ample water power at all times of the year, we shall be able to do so at a much less cost than we are subject to at present. We are building up for you at the mine and in the new mill and its surroundings a great property, but it takes time. Quartz mining, especially on a large scale, is slow and expensive work, and it requires, from those who properly manage it, constant vigilance, knowledge, forethought, and patience, and our case is complicated by the necessity for dry crushing, which is a slow and costly process; but it is most interesting work and specially so when it is also successful and profitable to the shareholders. In the management of this Waihi property and its future development, the directors take the deepest interest, and are keeping steadily in view one great object, which is to eliminate from this mine those elements of risk and uncertainty which more or less attach to ordinary mining enterprises, and, taking advantage of the highly favourable conditions of this mine for the purpose in view, to establish it as a great and solid industrial undertaking in which shareholders small and large may leave their money with comparative safety, and from which they may be able to calculate with tolerable certainty upon regular annual returns for many years to come; and as we from time to time advance with our works and developments in the mine, may be able to extend those calculations to future years still beyond. (Applause.) Again congratulating you upon the satisfactory position and outlook of the Waihi property, I beg to propose:—"That the directors' report and statement of accounts as submitted to this meeting be received and adopted, and that the dividends declared by the directors from time to time be and they are hereby approved."

Mr. J. BOUSTEAD seconded the resolution.

Mr. TOPHAM asked whether the 100,000 shares held by the company in the Union Waihi Company were going to be distributed.

The SOLICITOR replied that there were still legal difficulties in the way, although possibly they could be got over.

The CHAIRMAN said besides the legal question they had also to consider the policy of making the distribution. They were going to spend a good deal on the extensive works to be erected on the Ohinemuri River, and possibly some of these shares would be required for the purpose of providing for the outlay.

Mr. SETON asked when the 200 head of stamps would be ready for working.

The CHAIRMAN said the first 100 head would be ready about February next, and the erection of the other 100 depended on the experiments to be made with the Krom Rolls. If they proved satisfactory they would be used.

Mr. ROTHWELL congratulated the directors on the result of last year's work and deplored the loss of their late secretary, Mr. Charles Ackers, whom he referred to in the highest terms.

Mr. MUIRHEAD asked whether it was likely that they would be able to get enough ore to keep 200 head of stamps going for 20 years. (Laughter.)

The CHAIRMAN did not think the shareholders would expect him to make such a prophesy, but at any rate he could say that he believed the 200 head would be kept going for many years.

The resolution was then put and carried unanimously.

Mr. H. J. Bristow and Mr. Thomas Russell were re-elected directors, and Mr. C. J. Moore auditor.

The CHAIRMAN said the next business was to vote the sum of £500 in recognition of the services rendered by the late consulting engineer, Mr. Richard Spratt. He was connected with the company from the beginning, but, during times of difficulty, consented to his salary being reduced very considerably. Therefore the directors felt that this sum should be voted his relatives, to be applied as they thought, in their discretion, would meet the case.

Mr. ISAAC seconded the resolution, and it was carried unanimously.

The CHAIRMAN then announced that their late secretary, Mr. Charles Akers, had died that morning, remarking that he was one of the best men he had met with. They had sustained a very great loss in his death, for he had left behind no enemies, but as far as he could judge, many friends among the shareholders. Whoever came across him found him to be a thoroughly straightforward and painstaking gentleman, and the directors felt not only that they had lost a friend, but that the company had also sustained a very great loss.

On the motion of Mr. CARTER, a vote of thanks to the Chairman and directors was passed, and the proceedings then terminated.

CONSOLIDATED GOLD FIELDS OF NEW ZEALAND (LIMITED).

The statutory meeting of the shareholders in the Consolidated Gold Fields of New Zealand (Limited) was held at the Cannon-street Hotel, on Wednesday, when Sir Westby Percival, who presided, said the company was formed to take over from Mr. David Ziman certain properties and options which he had acquired in New Zealand. Their share capital was £225,000, and there was only one founder's share, which was held by Mr. Ziman, carrying 25 per cent. of the profits after dividends had been distributed among the shareholders equal in amount to the total share capital. The district in which their properties were located was the west coast of the South Island. Speaking broadly, the mining areas of the colony might be divided into three—the Auckland district, the Otago gold fields, and the West Coast of the South Island. In round figures, the West Coast gold fields had produced £23,000,000 worth of gold. The Otago district had produced £20,000,000, and the Auckland fields £7,500,000. He hoped that at the proper time the board would be able to declare a substantial interim dividend.

ELMORE'S FOREIGN AND COLONIAL PATENT COPPER DEPOSITING COMPANY (LIMITED).

The seventh annual general meeting of the shareholders in Elmore's Foreign and Colonial Patent Copper Depositing Company (Limited) was held on Wednesday, at the company's offices, Broad-street-avenue, E.C.—The Chairman (Mr. F. L. Rawson), in moving the adoption of the report and accounts, said the company had now emerged from the difficulties which beset it a year ago, and the value of their securities had increased. A little over £3000 of new debenture stock had been issued, but was not shown in the accounts, because the money at the end of the year was in the hands of the trustees. These operations had enabled them to reduce the ordinary creditors from £8440 to about £2000. The cost of carrying on the company during the troublous times they had passed through had been very small. Progress had also been slow, but it was sure; and only want of money had prevented a larger extension of the business. Since the report was sent out the returns of the Copper Company had increased by over 10 per cent., the German Company's sales had continued to increase, and the Wire Company was constantly opening new accounts, but they had not many particulars as to the progress of the French Company. Referring to the Dumouth system of deposition, Mr. Rawson adversely criticised the process, and said in his opinion it was not at all likely to be successful.—Mr. J. Sharmer seconded the resolution, and it was carried.—Mr. Rawson was re-elected as a director, and Mr. James Fitzpatrick as auditor, the meeting terminating with a vote of thanks to the Chairman.

GRASKOP EXPLORING COMPANY (LIMITED).

The statutory meeting of shareholders in this company was held yesterday, at Winchester House.—Mr. J. W. Halker, who presided, said the time—a few weeks—which had elapsed since the leases had been transferred had been well spent. The terms on which the company had obtained its water had been amicably arranged with the parent company, and the excellent results which had been obtained from some crushings undertaken by the parent company led them to believe that their own ground would be found to be similarly productive. The company had several highly valuable options, and he might assure the shareholders that their interests were being carefully guarded by the directors.—A vote of thanks to the Chairman terminated the proceedings.

The first batch of allotment letters in the NEW AUSTRALIAN BROKEN HILL CONSOLS was posted to applicants on the 19th inst.

The LIST of APPLICATIONS will OPEN on TUESDAY, the 23rd June, and CLOSE on FRIDAY, the 26th June, 1896, at 4 p.m., for both TOWN and COUNTRY.

The whole of the Capital of the Company, with the exception of 5,000 Shares, will be available for Working Capital.

THE

Pioneer Development and Exploration Company of British Columbia, Limited.

(Incorporated under the Companies Acts, 1862 to 1890.)

CAPITAL - - - - - - - - - £150,000,

In 150,000 Ordinary Shares of £1 each.

NO FOUNDERS', PREFERENCE, OR DEFERRED SHARES.

ISSUE OF 100,000 SHARES,

PAYABLE AS FOLLOWS—

2s. 6d. per Share on Application; 7s. 6d. per Share on Allotment; and the balance as required in calls of 5s. each at intervals of not less Three Months.

DIRECTORS.

H. G. CAMPION, Chairman Mount Reid Mining Company, Limited (Chairman).
R. B. TETLEY, Director Associated Gold Mines of Western Australia, Limited.
JONAS HEY, Bradford, Yorks.
W. H. ROBERTS, Director Waitekauri United Gold Mining Company, Limited.
E. LINDSAY PHILLIPS, Vancouver, British Columbia, and London.

BANKERS.

THE CITY BANK, Limited, Threadneedle Street, E.C.

SOLICITORS.

SCOTT, SPALDING & BELL, 15, Queen Street, E.C.

BROKERS.

BROWNING, TODD, & WHISH, 2, Royal Exchange, Buildings, E.C.

AUDITORS.

ARTHUR GODDARD & CO., Chartered Accountants, St. George's House, Eastcheap.

SECRETARY AND OFFICE.

W. COOPER, 9 and 10, King Street, London, E.C

PROSPECTUS.

The PIONEER DEVELOPMENT AND EXPLORATION COMPANY OF BRITISH COLUMBIA, LIMITED, is formed to acquire by purchase, lease, or otherwise, mining claims, leases, water, timber, and other rights, concessions and options, in British Columbia and elsewhere, to work and develop the same, to prepare them to be formed into separate Companies, and generally to aid in developing the mining, smelting, and other industries in British Columbia.

Very voluminous extracts from Government publications and the technical journals of the Province are enclosed with the Prospectus, from which it will be seen that the mineral wealth of British Columbia is probably not exceeded by any country in the world, and that water, coal, lime, and timber for treating ore are abundant and near at hand.

From the above extracts it is obvious that there is a very large field for alluvial or placer gold mining in the Cariboo district, whence, by the expenditure of comparatively small amounts of capital, very large returns may be obtained. It is common knowledge that in the East and West Kootenay and other districts, many quartz and other reefs and deposits have been discovered of great richness. Not only gold, but copper, silver, lead, platinum, cinnabar (quicksilver), and other metals appear to exist in large quantities. Enormous deposits of coal are also found, both bituminous and anthracite, and that of fine quality. The districts near the border line separating the United States from Canada, have hitherto been chiefly exploited by Americans, by whom most of the mines are owned. The ore has been largely shipped by them to be smelted at Helena, Denver, Butte, and other American smelting centres, but now that better access has been provided to the Canadian Pacific Railway, local smelting works have been and are being erected, and a very profitable outlet for capital is being provided.

The Company will be represented in British Columbia by Mr. CHARLES TETLEY, who has been settled there for many years, and who has a wide knowledge of the country, and is in personal touch with most of its influential men.

Public attention in England is being rapidly drawn to the vast resources of British Columbia, and little doubt exists but that plenty of business of a very profitable nature awaits the operations of this Company, under Mr. CHARLES TETLEY'S management.

There are no Founders' or other preferred shares.

As a proof of the estimation in which the public holds investments of this character, attention may be called to, and fair comparison be drawn, with the market value of shares of Companies in Western Australia undertaking business similar to that engaged in by this Company, as the opinion is held in many influential quarters that a very prosperous future awaits mining enterprises in British Columbia. The following may be instanced:—

Name of Company.	Nominal value of Shares, 1896.	Amount paid per Share.	Price per Share on 16th June, 1896.
COLONIAL FINANCE CORPORATION ...	£1	10s.	4¾ premium
WEST AUSTRALIAN GOLD FIELDS ...	£1	£1	10½
WEST AUSTRALIAN EXPLORING AND FINANCE	£1	£1	£4
WEST AUSTRALIAN AND GENERAL ASSOCIATION	£1	£1	4¼–4½
HAMPTON PLAINS	£1	£1	5¼
LONDON AND WEST AUSTRALIA EXPLORATION	£1	£1	2
BROOKMAN'S GOLD EXPLORATION AND FINANCE	£1	5s.	2½ premium

Two agreements, both dated the 18th day of June, 1896, have been entered into, one between this Company and CHARLES TETLEY, appointing him the representative of the Company in British Columbia, for one year from the date of allotment, at a salary of £500; and the other between this Company and the Kootenay Promotion Syndicate, Limited (hereinafter called the Syndicate, and to which Syndicate the Directors of this Company have subscribed), whereby the Syndicate undertakes to pay all expenses up to allotment to be made in respect of this issue of Shares, in consideration of the sum of £5000, payable in cash and fully paid shares of the Company, and the right to take up at par value on or before the 30th June, 1898, the further 50,000 Shares in the Company.

These Agreements and the Memorandum and Articles of Association can be seen at the offices of the Solicitors of the Company.

Applications for Shares should be made on the form enclosed with the Prospectus, and sent, with a remittance for the amount payable on application, to the Company's Bankers. If the number of Shares allotted be less than that applied for, the surplus will be credited in reduction of the payment due on allotment, and any balance will be returned.

Prospectuses and Forms of Application for Shares can be obtained at the Company's Bankers, Solicitors, Auditors, and Brokers, and at the Offices of the Company.

LONDON, *20th June*, 1896.

THE PIONEER DEVELOPMENT AND EXPLORATION COMPANY OF BRITISH COLUMBIA, LTD.

No.————

CAPITAL £150,000, IN 150,000 SHARES OF £1 EACH.

FIRST ISSUE OF 100,000 SHARES.

FORM OF APPLICATION.

To the Directors of

THE PIONEER DEVELOPMENT AND EXPLORATION COMPANY OF BRITISH COLUMBIA, LIMITED

GENTLEMEN,

Having paid to your Bankers the sum of £....., being a deposit of 2s. 6d. per Share on an application for.....Shares of £1 each in the above Company, hereby request that you will allot that number of Shares, and agree to accept such Shares, or any less number that may be allotted to upon the terms and subject to the conditions of the prospectus, dated 22nd June, 1896, and of the Memorandum and Articles of Association of the Company, and to pay 7s. 6d. per Share on Allotment, and the balance thereon in accordance with such prospectus, and request you to place name on the Register of Members of the Company in respect of the Shares so allotted.

Name (in full) .....

Address .....

Profession or Occupation .....

Date .....

Usual Signature .....

The BSCRIPTION LIST will PEN on MONDAY, June 22nd, and CLOSE on or before WEDNESDAY, June 24th, for Town, and on THURSDAY for Country.

THE ALMARAZ TIN MINING AND SMELTING COMPANY, LIMITED.

ZAMORA, SPAIN.

Incorporated under the Companies Acts, 1862 to 1890, and to be registered in Spain in accordance with the Code of Commerce and the Declaration made between Great Britain and Spain on the 29th January, 1883.

CAPITAL ... ... **£150,000.**

In 150,000 Shares of £1 each.

After payment for the properties, machinery, works, dressing plant, and developments, &c., the sum of £35,000 remains as working capital.

115,000 Shares are now offered to the Public at par payable as follows:—

2s. 6d. per Share on Application, | 5s. at one month after Allotment, and
7s. 6d. on Allotment, | 5s. at three months after Allotment,

The balance—viz., 35,000 Shares being allotted to the Vendor Syndicate in part payment of the purchase consideration

DIRECTORS.

*ROBERT BANKS LAVERY, 6, Portland Place, W.
B. MISA, 41, Crutchedfriars, London, E.C.
Captain T. H. PEARSON, Penzance, Cornwall.
FRASER SANDEMAN, Alston, Boxley, Kent, and Armathwaite, R.S.O., Cumberland.
*JOHN H. MORTIMER SCOTT, Leigham Court House, Streatham.
*Will not join the Board until after allotment.

Managing Director at Almaraz, Zamora, SAMUEL OWEN, M.E.

BANKERS.
The Commercial Bank of Scotland, Limited, 62, Lombard Street, E.C.

SOLICITOR.
WILLIAM NEGUS, 36, Bloomsbury Square, W.C.

SPANISH ADVOCATE.
Dr. A. M. REGIDOR Y JURADO, 23, Billiter Street, London, E.C., and Madrid.

BROKERS.
Messrs. D. L. THOMSON and Co, 7, Drapers' Gardens, London, E.C.

AUDITORS.
Messrs. FORD, RHODES, and FORD, 81, Cannon Street, London, E.C.

SECRETARY AND OFFICES.
EDGAR E. WARREN, 5 and 6, Bucklersbury, London, E.C.

PROSPECTUS.

This Company is formed to acquire, work, and further develop the following Tin mining properties, and to erect smelting works for the production of ingot tin from the produce of the dressing and concentrating mills.

The property is situated on the banks of the River Douro, a mile and a half from the village of Almaraz and about 12 miles from Zamora, the capital of the province. The mines are situated within from half a mile to two miles from the mill, upon a table-land, 3000ft., or thereabouts, above sea-level. The ground is undulating, intersected by watercourses which discharge into the Douro. The Douro is the main drainage channel of the district, and is about 50 to 70 mètres wide, varying in depth from 4 to 6 mètres, with a velocity of from 2ft. to 4ft. per second.

Mines.—Prospecting works and shafts with all necessary auxiliaries have been made and erected during the past two years, and the properties proved to be of highly tin-bearing value. Developments are already sufficiently advanced to maintain an output equal to the present mill capacity, and which out put is being added to daily. The following are the mining properties to be acquired:—

Fraternidad, containing an area of 12 pertenencias, equal to about 30 English acres.

Julia, containing an area of 12 pertenencias, equal to about 30 English acres.

Rosa, containing an area of 33 pertenencias, equal to about 82 English acres.

Mauricio (Abandonada), containing an area of 12 pertenencias, equal to about 30 English acres.

Mascotta, containing an area of 6 pertenencias, equal to about 15 English acres.

San Andres, containing an area of 12 pertenencias, equal to about 30 English acres.

Juana, containing an area of 12 pertenencias, equal to about 30 English acres.

Emilia, containing an area of 6 pertenencias, equal to about 15 English acres.

Lola, containing an area of 40 pertenencias, equal to about 100 English acres.

The following are the extracts from the reports of Samuel Owen, M.E., who has been on the property for the past 12 months, and the description of the lodes and workings.

Fraternidad.—The main shaft is 73ft. 6in. deep from surface; at 8ft. from bottom a cross-cut has been driven 30ft. 6in., at the end of which a chamber has been excavated and a vertical shaft sunk to cut the lode at a lower level, this was met with at 27ft. 6in.

The sinking of the main shaft has been proceeded with to a depth of 15 feet, making a total of 90 feet at 7 ft. 6 in. in the crosscut in the shaft the lode was met with and drivages made on same—that is 47 ft. E. and 53 ft. W.; a winze is sunk on the underlay of lode W. to a depth of 23 ft., where the lode is 3 ft. wide, showing rich tin.

Julia.—The strike of the lode at the outcrop is approximately E. and W. An excavation has been quarried out in the face of outcrop of the lode, the dimensions being, height 20 ft., width 18ft. to 24 ft., length 30 ft., the whole being good milling ore and portions very rich. A level has been driven in from the face of the quarry on the course of the lode E. for about 36 ft., at the end of which to the N. the lode was cut through and followed for about 10 ft., all good ore.

Main shaft is about 40 feet deep and still being sunk on. From this shaft there is a level driven E. by the side of the lode 22 ft. 6 in. A crosscut has also been driven S. of this level 22 ft. 3 in., which intersected the lode, and a drivage of 8 ft. made on the same where the lode maintains its character and quality. Another drivage from crosscut S.W. about 8 ft., to communicate with a ventilating shaft or winze sunk on the lode to a depth of 25 ft., there is also a drivage of 10 ft., through the lode W., all in good ore.

Rosa.—The depth of the shaft is 80 ft. At 36 ft. a crosscut has been driven E. 27 ft. 6 in., which intersected the lode at about 18 ft., levels being then driven on course of same N. and S., the former to the extent of 53 ft., and the latter of 36 ft. There are also crosscuts driven E. and W. at a depth of 73 ft., being respectively 24 ft. 6 in. and 23 ft. 6 in. At the end of the Eastern crosscut a winze has been sunk on the lode 7 ft. deep.

Mauricio.—(Abandonada).—A shaft has been sunk to a depth of about 50 ft. on the underlay and in the lode matrix, which is large and tinny and in places rich, levels driven at the bottom N. 25 ft. and S. 30 ft.

There is a very strong outcrop of lode for some 200 ft. and open face workings are being continued, taking the width of lode some 10 ft. to 20 ft. The tin is well distributed throughout the lode and at times very rich.

Mascotta.—Costeaning pits have been made in several directions, discovering a number of small lodes and branches rich in tin, and a shaft has been sunk on the most promising lodes to a depth of 35 ft., and some very rich branches have been met with during the sinking.

San Andres.—A shaft has been sunk to a depth of about 80 ft., and crosscuts and levels driven upon the course of the lode, and some rich tin ore has been taken from this mine.

Juana, Emilia.—Here there are similar workings to those at Mascotta.

Lola.—Two shafts have been sunk, one about 40 ft. and the other 53 ft. 6 in. At 20 ft. from surface a level has been driven W. 19 ft., and a crosscut to the S. 14 ft., the lode has been irregular in size and richness from the surface, some very rich ore being met with, levels are being driven E. and W. on the course of the lode from bottom of shaft.

The Vendor Syndicate has been actively engaged in proving these mines for the last three years, and has expended upwards of £80,000 in the erection of machinery of the latest and most approved type, and upon developing and proving the entire properties.

The quantity of ore extracted in so proving the mines and now at grass ready for crushing and treating at the works may be taken at 4,000 to 5000 tons, and valued at about £7000, and this amount is being daily increased; in addition to this it will be seen from extracts from the Report of the Mining Engineer and referred to above that large quantities of ore are in sight in the different drives ready for immediate extraction.

There is a considerable quantity of black oxide of tin in stock awaiting treatment, the product of the various samplings.

The following assays have been made from time to time and may be seen at the offices of the Company:—

Messrs. Sulman and Marshall, 63, Gracechurch Street, E.C.

No. 1	4·91 per cent. Metallic
No. 2	14·82 ,, ,,

Messrs. Humboldt and Co., of Coln a/m Rhine, who tested the general bulk of the whole of the mines.

No. 1	7¾ per cent. Metallic

Mr. G. T. Holloway, 57-8, Chancery Lane, W.C.

No. 1	15·00 per cent. Metallic
No. 2	12·50 ,, ,,
No. 3	8·00 ,, ,,

Messrs. Johnson and Sons, Cross Street, Finsbury,

No. 1	11·31 per cent. Metallic

Mr. H. Le Neve Foster, Temple Row, Birmingham.

No. 1	25·38 per cent. Metallic

The general average of 12 of the principal Cornish mines taken from published reports ranges from 1 to 2½ per cent. vide Fortnightly Tin Ticketing.

A mill with complete Krom roll crushing and dressing plant, with three Linkenbach tables—respectively one 23ft. and two 27ft. in diameter—has been erected, the crushing and concentrating capacity of which is about 80 tons per day of 24 hours at the lowest estimate. One of the lowest assays, it will be seen, gives 7¾ per cent., equal to over 6 tons of black oxide per 80 tons of ore, and producing (say) only 5 tons of black oxide of tin, approximately valued at £35 per ton at the mines, will give gross £175 per diem. The cost of this production is estimated for mining and milling not to exceed 10s. per ton all inclusive, leaving a net earning of £135 daily, at 300 days to the year, equal to £40,500 per annum.

The purchase includes the complete new and modern mining and concentrating plant, valuable water concession from the River Douro, steam pumping plant at the river capable of raising 9000 gallons per hour, engine power capable of effective horse power up to 160, carpenters' shop, blacksmith's shop with two forges, circular saw bench. Completely fitted engineers' shop with lathe complete, which will enable all repairs to machinery to be effected on the spot with the exception of large castings and forgings. Sample crushing plant, aerial tramway of some ½ mile in length, capable of delivering ore equal to the full capacity of the mill, two centrifugal pumps for the return and economy of water, a full complement of all mining tools and gear, diamond rock drill, tramways, trucks, poppet heads, steam pumps, mine equipments, &c. Stabling, furnished dwelling houses, and offices.

By an opportune and elaborate article on what should be the ideal method of treating tin ores, which appeared in the *Mining Journal* under date of March 21st, 1896, we can best describe the plant now erected on these properties (it was designed and placed in the machinists' hands for manufacture in July of 1895 (by quoting from the above journal Joseph Garland, Esq., F.G.S., M.I.M.M., in his presidential address to the Institution of Mining and Metallurgy on the 18th March, 1896 (see printed matter marked A annexed to the prospectus). A full description and drawings of the Reduction Mill and Homestead may be seen at the Company's offices.

Smelting Works.—Arrangements are being made to erect in a suitable spot (connected with the mines by an existing railway from Zamora) smelting furnaces for the output, and this will entail but a moderate outlay of the Company's working capital, to the extent of about £30) or £30). The advantages of this are obvious. The extra profits in saving the large import duty on English and foreign metallic tin imported into Spain would be a very material addition to the financial operations of the Company, inasmuch as Spain, it is stated, uses for home consumption at least 2000 tons of ingot tin per annum. There are also the important savings of carriage and smelters' charges to be taken into account.

Water.—A valuable concession to take water from the unfailing supply of the River Douro, which runs at the foot of the properties, has been obtained from the Spanish Government.

Timber.—There is a good supply for mining purposes within a reasonable distance, and a large stock is already stored at the mines.

Coal is obtained of the most suitable quality, and a reserve is now stored on the property for daily requirements. A new railway to Leon, just completed, will reduce the price now being paid for fuel to about 23s. per ton, the present price being 35s. per ton delivered at the mines.

Holding.—The properties are held under the Mining Laws of Spain and are thus practically freehold, subject only to a yearly tax of under £100 per annum to the Spanish Goverment, and the properties will be fully vested in the Company. The tax payable upon the production is 2 per cent. ad valorem on the black oxide.

It is expected that the first mineral returns will be ready for the market by next September at latest.

The Iberian Mines Syndicate, who are the Vendors, have fixed the purchase price at £115,000, payable as to £80,000 in cash and £35,000 in shares, and the balance, £20,000, in cash or shares at the option of the Directors.

An application will be made in due course to the London Stock Exchange for a quotation of the share of the Company.

The original assays, samples of the ore, and reports may be seen at the offices of the Company.

The purchase contract, the memorandum and articles of association, and the title deeds of the property may be seen at the office of the Solicitor to the Company.

The Vendor Syndicate, who are the promoters, have undertaken to pay all expenses of the formation and bringing out of the Company down to allotment (except the fees for the registration of the Company). Mr. R. B. Lavery and Mr. J. H. M. Scott are interested in the sale as Directors of the Vendor Syndicate.

The purchase contract is made between the Iberian Mines Syndicate, Limited, of the first part, Robert Banks Lavery of the second part, and the Company of the third part, and is dated 20th June, 1896.

Copies of this prospectus and forms of application for Shares may be obtained from the Bank and its branches, and at the office of the Solicitor and the Company.

THE ALMARAZ TIN MINING AND SMELTING COMPANY, LIMITED.

APPLICATION FORM FOR SHARES.

To the directors of
The Almaraz Tin Mining and Smelting Co., Limited.

Gentlemen,

Having paid to the Company's Bankers the sum of £.....being a deposit of 2s. 6d. per Share on application for.....Shares, (we, I) hereby request you to allot (us, me) that number, and (we, I) hereby agree to accept that number or any less number allotted to (us, me) and to pay the instalments thereon as required in the terms of the Prospectus. In the event of (our, my) receiving no allotment, the amount deposited to be returned to (us, me) in full.

Name (in full) .....
Address .....
Occupation or Description .....
Usual Signature .....
Date .....1896.

The Anglo-Australian Exploration (Limited) invite Subscriptions for the undermentioned Issue.

The LIST of APPLICATIONS for SHARES will OPEN on MONDAY, the 22nd day of June, and will CLOSE the same day at 4 p.m, for TOWN, and on TUESDAY for COUNTRY.

THE GALLYMONT GOLD FIELDS, LIMITED.

SITUATED IN THE BATHURST DISTRICT, N.S.W., AUSTRALIA.

The Property has been inspected and favourably reported upon by the following eminent and reliable authorities:—Herr Bergrath Schmeisser, Rev. J. Milne Curran, Samuel Gifford, Esq., and M. Eissler, Esq.

Incorporated under the Companies Acts, 1862 to 1890.

CAPITAL £300,000, in 300,000 Shares of £1 each.

Issue of 300,000 Shares of £1 each, of which the Vendors stipulate that not less than 150,000 shares shall be allotted to them as fully-paid in part payment the purchase consideration. The remaining 150,000 Shares are now being offered for subscription, and out of this number applications have already been received for 95,000 Shares, which will receive allotment in full. Payable:—

2s. 6d. per Share on Application, 7s. 6d. per Share on Allotment, and the balance, 10s. per Share, on July 31, 1896.

£75,000 CASH IS RESERVED FOR WORKING CAPITAL.

DIRECTORS.

Day Marks (Director of the Anglo-Australian Exploration, Limited), Chairman.
Leslie Falkiner, Bart., 153, Ashley Gardens, S.W. (Director of United Rhodesia Gold Fields, Limited).
F. P. Hoffnung-Goldsmid (Messrs. S. Hoffnung and Co., Sydney, London, and New York).
Julius Pam (Director of the Anglo-Australian Exploration, Limited).
Frank Taylor (Messrs. John Taylor and Sons), 6, Queen Street Place, E.C.
Leopold Yates, 54, Cornwall Gardens, S.W. (Director of the Gibraltar Consolidated Gold Mines, Limited).

LOCAL BOARD OF MANAGEMENT.

Hon. Sir Joseph Palmer Abbott, K.C.M.G., the Speaker of the Legislative Assembly, N.S.W.
Hon. Sir George Richard Dibbs, K.C.M.G., Ex-Premier of N.S.W.
Benjamin Francis Marks (late Managing Partner of Messrs. S. Hoffnung and Co., Sydney.

MANAGERS AND CONSULTING ENGINEERS IN ENGLAND.
John Taylor and Sons, 6, Queen Street Place, E.C.

CONSULTING ENGINEER IN AUSTRALIA.
M. Eissler, M.I.M.E. (U.S.A.), M.I.M.M. (England).

BANKERS.
The National Provincial Bank of England, Limited, 112, Bishopsgate Street, E.C.

SOLICITORS.
Ashurst, Morris, Crisp and Co., 17, Throgmorton Avenue, E.C.

BROKERS.
Derenburg and Co., 9, Drapers' Gardens, and Stock Exchange, E.C.

AUDITORS.
Turquand, Youngs, Bishop and Clark, 41, Coleman Street, E.C.

SECRETARY AND OFFICES:
W. F. Garland, 6 and 7, Queen Street Place, London, E.C.

PROSPECTUS.

This Company has been formed to acquire an extensive and highly auriferous Gold Field of 51 amalgamated Gold Mining Leases containing 264 acres 1 rood 1 perch, with Battery and Dam Sites. The property was secured by The Anglo-Australian Exploration, Limited, on the advice of their Engineer, Mr. M. Eissler, the well-known Mining Expert. During the last 12 months the property has been carefully explored and investigated by Mr. Eissler; and has also been examined and favourably reported upon by Mr. W. H. Skidmore, who has been connected with the district for many years as a mine owner and manager, Samuel Gifford, Esq., M.I.M.M., Inspecting Engineer to Messrs. John Taylor and Sons, and the Revd. J. Milne Curran, Geologist and Expert, and Lecturer to the Educational Department of the Government of New South Wales, who has had experience and knowledge of the property for the past 15 years. The property has also been recently inspected and favourably reported upon by Herr Bergrath Schmeisser, the eminent Expert and Geologist. There being about 8346 feet in length along the trend of the four reefs existing on the Property, or equivalent to a distance of over a mile and a half, there is sufficient area for several companies to carry on mining operations on an extensive scale.

The particulars in this Prospectus are taken from the report and letters of Mr. Eissler. The mines are situated in a highly auriferous district at Gallyswamp, in the parish of Somers, in the county of Bathurst, in the colony of New South Wales, and are distant seven miles from the Mandurama Station, on the Government Railway Line, and about 200 miles from Sydney, whence they can be reached in 12 hours. The properties are held under the usual Government mining leases, the rental payable being 20s. per annum per acre. Accompanying Mr. Eissler's report is a complete set of the plans of the property, showing the various leases and the longitudinal sections of the reefs. These plans have been prepared under Mr. Eissler's supervision, and he vouches for their correctness in every detail. There are four well-defined and parallel gold-bearing reefs traversing the property, with a strike of 45 degrees west of north, called the Top or Smith's Line, having a dip of 40 degrees to the west, and the Forge, Middle, and Perseverance Lines with a dip of about 70 to 75 degrees to the west. These are proved along the strike in a distinctly and regularly stratified slate formation. The workings extend north and south in a strip of country one thousand feet wide in which the reefs occur. Mr. Eissler is of opinion "that the reefs are of fissure origin, and that all the indications exist that the reefs will prove of a permanent character, and will carry their payable gold to a great depth." It will be seen from the reports and plans that the strike of the reefs through the area is shown by numerous shafts put down, ranging from 70 to 100 feet in depth, and in two or three instances from 150 to 200 feet in depth, and gold has been won from these various reefs along a distance of some 4850 feet. The centre of former operations was the southern area of the property (embracing 135 acres), and along the various lines of reefs for nearly 3500 feet. In the deepest points examined the reefs are seen under foot, three of them averaging 20 inches in width, and one—the Top Line—12 inches; nearly the whole of this Top Line is virgin ground, from which important developments are expected. The total average assays of 63 bulk samples taken from the lodes by Mr. Eissler in the Homeward Bound, Kenworthy's, Mullallays, and Lee's Western Leases have yielded 1 ounce 19 dwts. 18 grains of fine gold per ton. The total weight, 94 cwts. 3 qrs. 6 lbs. of ore taken from the bottom of the deepest workings in the Homeward Bound, Kenworthy's, and Lee's Western Leases, which was treated at the Metallurgical Works at Sydney, gave an average assay value of 1 ounce 15 dwts. 18 grains per ton. The following assays have recently been advised from the deeper level in the pyritic zone at Kenworthy's Shaft, evidencing the probable increasing payable character of the ore as depth is attained:—3 ounces 18 dwts. 10 grains; 2 ounces 2 dwts. 11 grains; 3 ounces 5 dwts. 8 grains; 1 ounce 0 dwts. 6 grains; and 3 ounces 4 dwts. of gold per ton of ore. Mr. Eissler has given details in his report of the past gold returns obtained from these Mines under the crude system of operations hitherto in vogue there, which show highly satisfactory results. It will be seen that he has reported on the property in two sections—viz., North and South Blocks, and he calculates the extent and value of the ore deposits by taking a given measurement of 2500 feet along the line of the four reefs in the Southern section of the property alone, which should contain for that length along the strike, according to cubical measurement, 125,000 tons of ore for each 100 feet level as depth is attained, and as the length of the property through which the strike of the reefs trend is over three times the extent calculated, the foregoing calculations should demonstrate the great possibilities for continuous and highly profitable results for many years to come. The facilities for mining and milling are favourable, labour, fuel, and water being abundant, and the country is healthy and easy of access. Cost of transit for machinery and stores is comparatively cheap, carriage from Sydney being under £4 per ton; timber is plentiful and cheap for mining purposes, and wood is delivered at the mines for 7s. 6d. per cord. Mr. Eissler estimates that a working capital of £60,000 will be required for development and plant to place the property on a dividend-paying basis, but it is proposed to provide £75,000 for larger developments and output, and for proving the northern area of the property at depth. There is a stream of water close to the Mines which will ensure a steady supply for battery purposes during all seasons of the year, and suitable dam and battery sites have been secured. In addition to the machinery erected by the Anglo-Australian Exploration (Limited) on the Great Western and Mullallays Lease, it is intended to equip and sink main shafts to a depth of about 1500 feet, from which levels and crosscuts will be driven to work the four reefs in the property. It is also intended to develop the northern area of the property on the plan proposed by Mr. Eissler in his report, when one or more subsidiary Companies can be formed to work it on a large scale. Under this heading Mr. Eissler considers that the conditions and prospects are highly satisfactory, and he estimates that when working the property on a large scale, and basing his calculations on a gold yield of 17½ dwts. per ton, a 60 stamp battery will give the following results:—Taking the output of ore at 4500 tons monthly—54,000 tons per annum at 17½ dwts. per ton will return 47,250 ounces of gold.

47,250 ozs. of gold at £3 15s. per oz.	£177,187 10 0
Less cost of mining and treatment of 54,000 tons of ore at £1 10s. per ton	81,000 0
Leaving a yearly profit of ...	£96,187 10 0

Attention is specially directed to the concluding paragraph in Mr. Eissler's report, which reads as follows:—"I therefore arrive at the satisfactory conclusion, which is endorsed by the highest mining authority in Australia, that this extensive property offers unusually good prospects, and that with developments, and working the mines on a large scale, handsome dividends can be earned, and I have no hesitation in recommending the same as an exceptionally good and substantial mining investment." The Anglo-Australian Exploration (Limited), the vendors, are the promoters of the Company, and have fixed the purchase consideration at the sum of £125,000, of which they stipulate that not less than the sum of £150,000 shall be satisfied by an allotment of fully paid-up shares, and they are willing to accept the balance of the purchase consideration either in fully paid shares, or partly in cash and partly in fully paid shares, at the option of the Directors, and they undertake to pay all the expenses of and incidental to the promotion and formation of the Company up to and including the first allotment of shares, together with all legal and other charges and expenses connected with the transfer of the property to the Company, which will thus start operations with a working capital of £75,000 intact. The following contracts have been entered into:—An agreement dated 17th June, 1896, between the Anglo-Australian Exploration (Limited) of the one part, and the Gallymont Gold Fields (Limited) of the other part, and the only other agreements are those which the Vendor Company has entered into with third parties for payment of commissions to brokers and for the subscription of the capital, to none of which is the Company a party. Applicants for shares will be deemed to have had notice of these agreements, and to have waived their right (if any) to any particulars of the same, whether under Section 38 of the Companies' Act, 1867, or otherwise. Application for shares should be made on the form accompanying the Prospectus, and forwarded to the Company's Bankers, together with a remittance for the amount payable on application. The allotment will be made as early as possible after the subscription is closed, and in case where no allotment is made the amount deposited on application will be returned at once without deduction. If the number of shares allotted be less than that applied for, the surplus will be applied in reduction of the payment on allotment so far as necessary, and any balance will be returned. The original reports of Messrs. Eissler, Skidmore, Gifford, the Rev. J. Milne Curran, and Herr Bergrath Schmeisser, together with plans and sections of the property, can be seen at the offices of the Company, and the above Agreement and the Memorandum and Articles of Association may be seen at the office of the Solicitors to the Company. Prospectuses and Forms of Application may be obtained from the Bankers, Solicitors, Brokers, or at the office of the Company.—17th June, 1896.

— The WITWATERSRAND DEEP (LIMITED) is now prepared to issue share warrants to bearer in exchange for registered shares. Forms of application may be obtained at the London offices, 120, Bishopsgate-street Within, E.C.

— The PROSPECTORS' ASSOCIATION (LIMITED), 1, St. Helen's Place, E.C., announces that letters of allotment and regret have been posted to the applicants for the new ordinary shares of £1 each, authorised at the shareholders' meeting held on the 12th instant.

—The PROSPECTORS' ASSOCIATION (LIMITED), the KURNALPI GOLD MINING COMPANY (LIMITED), and the MOUNT MARGARET REEFS (LIMITED) notify change of address on and after Monday next, the 22nd inst., to 34 and 36, Gresham-street, E.C., and that in consequence of the removal the offices there will be closed on the above date.

— The broker to the WEST AUSTRALIAN (GOLD DISTRICT) TRADING SYNDICATE (LIMITED) has been officially informed by the secretary of the Stock Exchange that a settlement has been granted in the ordinary and founders' shares for the 25th inst.

KATHLEEN CROWN.—The manager reports under date May 5:—I beg to hand you the following report for the four weeks ending the 2nd inst.:—A considerable amount of scrub and heavy bush was cleared, also excavation of ground was carried out in order to erect smith's shop, also the site for the main engine shaft was fixed on, and shaft itself has been sunk 10 feet and securely timbered. The country rock is of excellent quality. If this lasts down, as there is every reason to believe it will, the reefs when intersected prove of a productive nature. We shall, no doubt, require the pumping engine and pit work with boilers as early as possible, as it is very probable we shall not be able to sink more than about 90 feet on account of the water. A new road has been made to the mine and other general work has been carried out in an efficient manner

THE GUNNISON GOLD BELT, COLORADO.

(BY OUR OWN CORRESPONDENT.)

THE writer has just returned from an eight day tour through the northern end of the Gunnison gold belt, involving a wagon ride of 190 miles, such northern end comprising a territory of about 30 miles long and 15 miles wide, extending from the line of the Denver, Leadville, and Gunnison Railroad to the Continental Divide, and ranging in altitude from 8000 to upwards of 11,000 feet. The present population of the entire district is less than 1000. The establishment on June 1 of a daily train service between Denver and Gunnison by the Denver, Leadville, and Gunnison Railroad now places this hitherto neglected or overlooked district within easy access of Denver, and should lead to its receiving the attention it well merits from mining men and investors.

The triangle of country, two sides of which are bounded by Ohio Creek and Quartz Creek, and all parts of which are within 7 miles of the town of Pitkin on the Denver, Leadville, and Gunnison Railroad, is very interesting. The geological conditions are all that can be desired for a gold district consisting of granite, schists, &c., traversed by dykes of porphyry and other igneous rocks and strong quartz veins. The only really developed mine in the triangle is the Sacramento, in which the ore body is continuous, well mineralised, and remarkably even in character. The property is developed by over 5000 feet of tunnels and levels, the ore ranging from £4 to £60 gold per ton, the production to date being nearly £60,000. What has been and is being done at Sacramento can apparently be duplicated at 50 other properties in this triangle, the only question being one of capital. At the surface the ore is quartz, containing oxidised iron and free gold, and as depth is gained it becomes a sulphide. Next to the question of capital, the leading question is the local treatment of the low-grade ores, which will not stand shipment to the smelters. As an illustration of the character of the district, while we were there a Denver gentleman took samples from 54 different properties all less than 50 feet in depth. Six of these were picked samples, and assayed from £20 to £76 per ton, the remaining 48 samples averaging about £6 per ton, of which over £5 was gold. It is probable that one-half of the above-mentioned 48 properties would commence shipping ore running from £3 to £4 per ton within 10 days, if there was a local mill to treat it economically and effectively, and it can only be a matter of a short time before the district is supplied with the right kind of mill.

In the triangle referred to there is a good deal of unprospected territory, also about 200 claims on which location work merely has been done, some of them showing veins, but never having shipped. A number of these claims are patented. Others are not yet patented, but the assessment work is kept up. Other claims have been abandoned and can be re-located. Many partially developed properties of considerable promise can be obtained on very reasonable terms, as they belong to parties who were left practically tied up by the slump in silver in 1893. It is within the mark to say that about a dozen mines, less than 7 miles from Pitkin, with judicious management and a moderate amount of capital could at once, or in a very short time, ship gold ore and pay dividends. There are scores of less developed properties which only need capital to put them in the above list. Besides Colorado capital, outside capital from New York, Boston, Illinois, Iowa, Pittsburg, &c., is beginning to come in.

The country around Pitkin (altitude 9200 feet) as far as Tincup (altitude 10,200 feet) was a great silver district prior to 1893, but the mines are now shut down, and at least two-thirds of the people moved elsewhere for employment. The one-third remaining were left so financially crippled by the depreciation and closing down of the silver mines as to be unable financially to develop the gold district as it merits. Besides very considerable Colorado capital, the closed down silver mines and the associated mills also represent much capital from New York, New Jersey, Illinois, Kansas City, St. Louis, &c. Only three silver mines in the district have survived the slump as producers on account of the extreme richness of the ore—viz., the Cleopatra and Fairview Mines at an altitude of 12,000 feet, and the Ben Franklin Mine at an altitude of over 10,000 feet.

The vicinity of Tincup is remarkable not only for silver mines, but for rich gold placers in the gulches, which have been worked for many years, though only by hand, and in a very limited way; that is, without any appliances on a large commercial scale involving the investment of considerable capital.

Ten miles north of Tincup in Taylor Park (9200 feet) we visited the headquarters of a most interesting enterprise. The Taylor Park Gold Mining Company, representing Massachusetts capital, after the most careful examination by several experts, has secured about 3000 acres of ground, and is constructing a ditch from Taylor River 17 miles long, 8 feet wide on the bottom, 10 feet wide on the top, and 3 feet deep, with a fall of 15 feet per mile, carrying 2000 miners' inches of water, at a total cost of nearly £8000; also a second ditch from Texas Creek, 6¼ miles long, 5 feet wide on the bottom, 7 feet wide on the top, 2½ feet deep, with a fall of 20 feet per mile, carrying 1500 miners' inches, at a total cost of £2400. These ditches will be completed before snow falls, and next spring will furnish the water for hydraulic placer mining on a large scale. The lowest estimate of the gold in the gravel is 1s. per cubic yard, and one single gulch, representing one-tenth of the company's ground, is expected to yield £400,000 in gold.

There are over 200 square miles of gold-bearing gravel in and around Taylor Park. The above company is the first that has ever approached the matter with capital, and on a large scale; they have only got a mere fraction of the ground, and what they are now doing others have every opportunity to do in the adjoining places.

The heads of the gulches and adjacent foot hills and higher ranges, from which this vast amount of placer gold evidently came, have never yet been thoroughly prospected for gold-bearing veins.

At Forrest Hill (altitude 11,000 feet), 20 miles north of Tincup, several companies representing Minneapolis, Michigan, and Ohio capital respectively are doing development work. Very rich float has been found on this hill, but so far the veins from which it came have not been discovered.

A Mr. J. W. Taylor, from New York, after spending some months in Cripple Creek looking for an investment, finally became disgusted with the ridiculously high prices asked, and left without investing in anything. He then went to Gunnison County and secured some claims, on lease and bonds, on Cross Mountain (altitude 12,500 feet) 7 miles from Tincup. He commenced work August 1, 1895, has now 600 feet of workings all in ore, and 1800 tons of ore on the dump, which averages from £13 to £14 per ton. He saves from 65 to 70 per cent. of the assay value on the plates of a two stamp Tremaine battery he has put up, and careful tests show that, by means of the cyanide process, the tailings can be treated and from 90 to 98 per cent. of the assay value saved. He contemplates constructing a wire tramway from the mine (altitude 12,300 feet) to the mill 2000 feet below, increasing the capactity of the mill, and erecting a cyanide plant for the treatment of the tailings, thereby leaving only the bullion to be shipped.

Cross Mountain is not only an entirely new gold district, but from the top of the mountain the same geological formation can be distinctly traced for miles, yet such continuation is not only undeveloped, but even unprospected, and Mr. Taylor is of opinion that efficient prospecting would lead to important discoveries.

There is no doubt whatever that the Gunnison gold belt has a great future before it, and well merits the personal investigation of mining men and investors.

THOMAS TONGE.

— The HAMPTON PLAINS EXPLORATION COMPANY (LIMITED), in conjunction with the HAMPTON GOLD HILL MINES (LIMITED), have taken an interest in a property in the Gibraltar district of Western Australia, the prospects of which are favourable

ROYAL INSTITUTION OF CORNWALL.

THE SPRING MEETING.

THE Spring meeting of this Institution was held at Truro on Tuesday, Mr. J. D. ENYS occupying the chair, in the absence of Mr. Leonard H. Courtney, M.P., the President of the Institute, who was unable to attend.

The CHAIRMAN said it was proposed to adjourn that meeting until after the publication of No. 42 of the Journal, now being prepared, as they had to give the Henwood medal to the writer of the best paper in the three latest issues of the Journal. He dealt with the appearance of trees after the dry season during a recent journey from Scotland to Cornwall, *vid* London, and spoke briefly on specimens of stone implements used by the natives of New Zealand.

Cripple Creek and Cornwall.

Mr. R. PEARCE, F.G.S., of Denver, showed two or three specimens of mineral from the Cripple Creek of Colorado. He said there was no suspicion that gold existed in the Cripple Creek district. It never offered the peculiar conditions most gold districts offered in the way of outcrops and well-defined fissure veins. Gold did not occur native as in other places, where the precious metal occurred in very large quantities, but occurred with the rare element of tellurium. The discovery was made by a man who knew nothing about geology or assaying. It had struck him that there was to-day room for the prospector in Cornwall. Between 30 and 40 years ago he did a great deal of work in Cornwall in hunting up, more particularly, the minerals of the county, and he thought that since that time nothing had been done in the way of new discoveries. It might be that he was imbued with certain American ideas, but he felt that they as Cornishmen had, in a measure, allowed themselves to sleep. It distressed him as a Cornishman to hear of the depression existing at this time. He thought that depression was due more particularly to the slow and indifferent habits of the Cornish miner himself. That he said without the slightest hesitation. All they wanted to-day were modern ideas and modern systems of working introduced into their mines to make them successful. Only yesterday he went to the bottom of Dolcoath, 440 fathoms, and there saw an enormous lode, 40 odd feet wide, which contained quite a considerable quantity of tin. But in that mine they did not seem to have any means of getting it out, or any capacity for treating it when they got it out. He thought it behoved them to try and introduce a little spirit into their Cornish engineers, and try and get them to introduce modern ideas, and the modern systems in other countries. He spoke this in good faith, having the greatest possible sympathy with Cornish men and Cornish mines, but he thought the county had been neglected in a very great measure. It had occurred to him whether they had not the conditions in Cornwall which should warrant their attempting to prospect for gold. In their collections they had a magnificent nugget from Carnon streams, and small ones from other districts, and yet he did not think anybody had ever made a study of looking for gold in Cornwall. He thought Cornwall had the proper geological conditions for gold. Gold as it occurred in Cripple Creek might exist without the miner having an opportunity of discovering it.

Mr. J. H. COLLINS thought he might say ditto to Mr. Pearce's observation. He did not know whether Mr. Pearce was aware of the difficulty there was in getting capital for Cornish mines. In London, capital could not be got for any part of the world except Cornwall. He thought that was to a great extent due to the tendency to depreciate the mines in their own county, though every one of the leading mines had a history which would bear investigation. (Hear, hear.) In conclusion, he spoke of his happy teaching days in that Institution, and mentioned Mr. R. Pearce, Mr. C. Twite, and Mr. Le Neve Foster as amongst other Institution teachers.

The CHAIRMAN proposed a vote of thanks to Mr. Pearce for his paper, in seconding which Mr. S. TREVAIL referred to the important technical college and art gallery which was to be erected in Truro through the munificence of Mr. J. Passmore Edwards.

The motion was carried unanimously.

Gifts to the Institution.

The Curator (Mr. R. H. Gregg) submitted the lists of gifts. They were:—To the library—Lectures on fishes, &c., at the Fisheries Exhibition, Truro, 1893, Cornwall County Council, per Mr. E. W. Rashleigh; on Prophecies fulfilled during the nineteenth century, Mr. E. Dingle; Remarks on some senses in fishes, including a sixth faculty, Mr. Matthias Dunn; Ancient history from the monuments of Sinai, Mrs. Peter, Chyverton; general index to the monthly notices of the Royal Astronomical Society, Concretions of Chalcedony and Opal in Obsidian and Rhyolite in Colorado, by Horace B. Paton, and the Dyke on the Columbian Vein in Ward District, Boulder Company, Colorado, from the Colorado Scientific Society; British Association Report, 1895, Mr. J. D. Enys; *Tantallon Castle*, the story of the ship and castle, Donald Currie, and Co.—To the Museum. Impression of seal of Truro Cathedral, Chancellor Worlledge; back of large turtle, two baby turtles, two turtle's eggs, two sea swallow's eggs, Mr. W. W. Prynn, surgeon, R.N.; constable's staff of St. Mary's Parish, Truro, of William IV.'s time, Miss Holland; two sea swallow's eggs, from the Isle of Ascension, Mr. Hamilton James; plaister models in relief of Peninsula of Sinai and of Jerusalem, from the Ordnance Survey, by Lieutenant-General Sir Henry James, R.E., F.R.S., Mrs. Peter, Chyverton; natural crystals of sulphate of copper from old Roman workings in the Rio Tinto Mines, Mr. James Osborne; heron, Major Parkyn; bottle marked "W. Mosley, Truro, 1772," Mr. Hamilton James; two specimens illustrating the occurrence of gold in the ores of the Cripple Creek district, Dr. Richard Pearce.

— The RIO TINTO COMPANY (LIMITED) announce payment of the drawn bonds and coupons on their 4 per cent. first mortgage bonds due 1st proximo. They invite holders to present coupons and drawn bonds at once.

— The transfer books of the MOUNT LYELL MINING AND RAILWAY COMPANY (LIMITED) will be closed from the 24th to the 26th inst. inclusive, for the purpose of making up the list of shareholders entitled to participate in the issue of new shares at par.

— The SOUTH AFRICAN GOLD TRUST (LIMITED) notify that in terms of the issue of the 5½ per cent. debentures the transfer books of such issue will be closed from the 24th to the 30th inst., both days inclusive, for the purpose of paying the half-yearly interest, and also that the transfer books of the 6 per cent. preference shares will be closed from the 22nd inst. to the 30th inst., both days inclusive, for the purpose of paying the dividend due on the 1st proximo.

— The SHEBA GOLD MINING COMPANY (LIMITED) has declared a dividend of 1s. per share, free of income tax, payable on July 6 to all shareholders on the register on the 20th inst. The register of shareholders will be closed from June 22 to July 4, both days inclusive

AFRICAN MINES' MAY OUTPUT.

GOLD.

	Dec. Ozs.	Jan. Ozs.	Feb. Ozs.	Mar. Ozs.	Apr. Ozs.	May. Ozs.
Appantee	—	348	—	—	—	376
Barnato	546	550	571	533	400	500
Block B	2,690	2,548	2,521	2,870	3,153	2,854
Buffelsdoorn	4,011	3,625	2,539	2,202	—	—
Champ d'Or	5,433	870	2,377	2,920	3,360	3,383
City and Suburban	8,036	6,308	8,037	8,203	7,835	8,351
Crown Reef	10,729	8,890	10,845	11,303	11,498	11,369
Durban-Roodepoort	4,710	3,812	5,282	5,558	5,590	5,519
Eastleigh	1,413	1,950	1,844	2,100	2,155	1,650
Ferreira	11,050	9,879	11,770	12,770	12,219	13,115
Forbes Reef	109	118	144	150	102	67
Graskop	144	129	201	310	—	204
Geldenhuis Deep	3,190	3,382	2,793	3,584	4,046	4,173
Geldenhuis Estate	5,099	2,430*b*	5,815	6,204	6,139	5,897
Geldenhuis Main Reef	2,052	1,747	1,876	1,881	1,655	1,214
George Goch	3,355	2,278	3,082	3,383	4,362	4,660
Ginsberg	679*e*	813*r*	910	938	1,175	1,018
Glencairn Main Reef	5,364	3,163	4,401	4,246	4,527	3,230*a*
Henry Nourse	5,021	3,616*p*	5,288	6,166	6,223	6,298
Joe's Reef United	205	199	155	175	227	294
Johannesburg Pioneer	2,710	2,611	2,698	—	—	—
Jubilee	2,689	2,238	2,472	2,328	2,485	3,059
Jumpers	4,960	3,104*m*	3,317	3,704	4,202	4,935
Lancaster	234	265	253	—	—	—
Langlaagte Estate	9,679	9,058	9,165	9,568	9,002	9,428
Langlaagte Star	—	—	—	—	—	1,207
Langlaagte Royal	—	—	—	—	—	3,182
Lisbon-Berlyn	653	808	821	842	763	737
Lydenburg Ming. Estate	—	—	—	4,945	5,404	6,153
May Consolidated	3,299	3,048	3,237	3,871	4,323	4,878
Meyer and Charlton	3,264	2,437	3,008	3,457	4,006	3,979
Minerva	1,139	1,311	276	—	1,379	1,453
Moodies	309	490	1,000	1,150	1,764	690
New Chimes	1,886	807	806	1,692	—	—
New Clewer Estate	1,381	1,573	1,683	—	—	—
New Comet	2,480	1,349	1,985	283†	—	—
New Croesus	2,175*b*	2,020	3,058	2,724	2,441	2,772
New Heriot	5,326	3,825	5,716	6,045	6,011	6,033
New Kleinfontein	2,552	1,326	2,308	—	—	—
New Modderfontein	—	—	—	—	—	2,172
New Primrose	9,553	9,026*f*	9,101	9,103	9,547	9,004
New Rietfontein	1,901*d*	2,076	2,297	2,349	2,327	2,117
Nigel	2,844	2,074	2,079	1,798	2,001	2,026
Orion	2,900	2,111	2,867	—	—	897
Paarl Central	404	287	220	—	—	—
Pigg's Peak	—	88	66	—	—	—
Porges-Randfontein	2,517	1,792	1,129	—	—	—
Princess Estate	1,334	1,524	1,874	1,537	1,671	2,072
Robinson	16,034	12,281	14,838	16,267	15,927	19,333
Roodepoort Deep	—	—	—	—	1,263	2,171
Roodepoort United M.R.	3,625	3,337	3,820	4,001	3,961	4,121
Salisbury	2,450	2,100	1,950	2,450	2,850	2,950
Sheba	5,602	10,010	10,028	12,500	10,340	10,024
Simmer and Jack	8,302	6,319	7,758	8,636	8,640	8,653
Spitzkop	199	211	384	286	—	—
Stanhope	730	604	810	870	960	920
Sutherland Reef	229	239	430	378	134	—
Transvaal Gold	2,695	2,475	3,380	4,945	—	—
Treasury	—	—	—	—	—	2,373
United Ivy Reef	—	365	624	590	649	570
United Langlaagte	1,148	577	578	367	—	—
Van Ryn	2,406	2,334	2,081	2,088	—	1,551
Wemmer	6,075	5,361	4,967	5,202	5,597	5,148
Welhuter	5,527	3,216	4,906	5,524	4,778	5,043
Worcester Exploration	1,971	2,050	1,850	2,458	2,444	2,444

DIAMONDS.

	Carats.	Carats.	Carats.	Carats.	Carats.	Carats.
Kaffrontein	6,800	6,800	4,250	4,500	4,750	3,700
New Gordon	—	—	2,118	—	—	—
Un. Mines, Baltfontein	—	6,000	—	—	—	—

COAL.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Camel Coal	24,100	15,880*c*	22,435	25,017	26,500	18,500
Great Eastern	12,500	11,364	15,432	16,100	16,500	13,200
Transvaal Coal Trust	32,100	29,400	24,500	29,400	32,200	—

a 17 days. *b* 60 stamps, 24 days. *c* 10 stamps, 26 days. *d* 50 stamps, 24 days. *f* 22 days. *k* 18 days. *m* 15 days. *p* 17 days. *r* 25 days. *s* mine closed 14 days. † Tailings only.

— It is notified that Coupon No. 8 of the debentures of the OURO PRETO GOLD MINES OF BRAZIL (LIMITED) will be paid by Messrs. Smith, Payne, and Smiths on and after the 30th inst.

COMPANIES AND LEGAL ANNOUNCEMENTS.

"." Advertisements are inserted in this column at the rate of 9d. per line, with a minimum charge of 7s. 6d.

THE FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the HALF-YEARLY MEETING of Shareholders of this Company will be held at Winchester House, Old Broad Street, in the City of London, on MONDAY, the 29th day of June, 1896, at Two o'clock p.m., for the following purposes:—

To receive the Report of the Directors and the Audited Statement of Accounts of the Company for the six months ending the 31st December, 1895; to declare a dividend; and for other business.

The Transfer Books of the Company will be closed from Monday, the 29th day of June, until Saturday, the 4th day of July, 1896, both days inclusive.

By Order of the Board,
J. JAMESON TRURAN, Secretary.

184, Gresham House, Old Broad Street,
London, E.C., 12th June, 1896.

PATENTS, DESIGNS, AND TRADE MARKS ACTS, 1883 to 1888.

NOTICE IS HEREBY GIVEN, that JOSEPH HENOCHSBERG, of 44, Broad Street House, in the City of London, and of Coolgardie, Western Australia, has applied for leave to amend the Specification of the Letters Patent, No. 24,782, of 1894, granted to WILLIAM HERBERT HYATT for "A Method for Extracting Gold without the Use of Water by Means of a Combined Air Blast and Mercury, and Apparatus for Effecting Same."

Particulars of the proposed amendments were set forth in the Illustrated Official Journal (Patents) issued on the 10th June, 1896.

Any person, or persons, may give notice of opposition to the amendment (on Form G) at the Patent Office, 25, Southampton Buildings, London, W.C., within one calendar month from the date of the said Journal.

(Signed) H. READER LACK,
Comptroller-General.

CARPMAEL and Co.,
24, Southampton Buildings, W.C.,
Chartered Patent Agents.

L. LePersonne and Co., London.
Telephone, No. 15,144. Telegraphic Address: "Lepersonne, London." Codes, A.B.C., MACNEIL, MOREING.
MINERAL, METAL, IRON AND TIN PLATE MERCHANTS AND BROKERS.
Contracts negociated. Buying or Selling Agencies solicited
Zinc, Lead, Silver Lead, and Copper Ores' offers specially invited.
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ARE BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c.
and DROSS or ORES containing
TIN, COPPER, LEAD, AND ANTIMONY.

HENRY WIGGIN & CO. (Limited),
NICKEL AND COBALT REFINERS,
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BIRMINGHAM.

GILLIARD and HOLT,
(Established 1872.)
SHIPPING and FORWARDING AGENTS TO MINING and ESTATE COMPANIES.
Agents at Principal South African, Australian, and New Zealand Ports.
150, LEADENHALL STREET, LONDON, E.C.

DONALD CLARK, B.C.E., M.E.,
BAIRNSDALE, VICTORIA,
Director of the North Gippsland School of Mines (which has the most perfect Gold-testing Machinery in Australia),
REPORTS ON MINES AND MINING PROPERTIES.
Gippsland a Speciality.

J. A. JONES, Mining Engineer,
(M.Inst.M.M., M.N.Eng.Inst.M.M.E.)
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COLORADO MINING AND OTHER INVESTMENTS.
THOMAS TONGE, DENVER, COLORADO.
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Ores, Mattes Regulus, and Bars received and prepared for market.
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Regular lines of steamers from America, Europe, &c.
Good prices can be obtained for low produce Copper Ores. Send air samples of not less than half a pound.

THE AUSTRALIAN GOLD RECOVERY COMPANY (Limited).
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All information and terms regarding Plants and the Licensing of this Process can be obtained on application to:
THE AUSTRALIAN GOLD RECOVERY CO. (Ld.), 23, College Hill, London, E.C.
JAMES R. FOWLER, Esq., 14, King William Street Adelaide; or
GORDON WILSON, Esq., The Australian Gold Recovery Company (Limited), Charters Towers, North Queensland.
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AT the request of certain English stockholders, we have arranged to keep in constant telegraphic communication with the head office of this company in New York, and can furnish full information and the latest reports regarding these mines, and, if desired, can cable any inquiry for immediate reply.
MAGUIRE, BAUCUS, and STAPLETON,
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RAILS.—Bridge, Flange, Double Head, and Bull Head, with or without fastenings.
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EARTH WAGONS.—30-inch gauge, end and or side tipping, £5 each, at Cardiff. Steel Wheels and Steel Axles.
PORTABLE RAILWAY.—£11 per 100 yards of railway 30 inch gauge, and £30 per 100 yards of railway 39⅜ inch (1-metre) gauge, both complete and ready for laying.
RAILWAY COAL WAGONS.—(New and Second-hand) For Cash, Redemption Hire or Simple Hire. Quick delivery can be made of perfectly new, and almost new latest regulations.
LOCOMOTIVES.—Six wheels coupled, by Manning, Wardle, and Co., 12 inches by 17 inches, now near Cardiff; also six wheels coupled, by Avonside Engine Company, 14 inches by 20 inches, now at Cardiff; also six wheels coupled, by Sharp, Stewart, and Co., 17 inches by 24 inches, now near Cardiff; all recently thoroughly overhauled, and ready for instant work; cheap for cash, or three years' redemption purchase.
Full particulars on application.

A NEW GUIDE TO THE CONTINENT.—We have received an advance Press copy of the Great Eastern Railway Company's "Tourist Guide to the Continent," published at the price of 6d. Among its fresh features are a series of Continental maps, a chapter on cycling routes in Holland, Belgium, and Germany, and a chapter, "Dull Useful Information," giving particulars as to the cost of Continental travel. The guide is, in these respects, a great advance upon the earlier issues, and will be found a useful companion to the Continental tripper.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates

ALL OVER THE WORLD,
Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical Engineers, Manufacturers, &c., &c.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan.

THE MINING JOURNAL is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator, or syndicate; and it is in no way connected with any share-dealing agency.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.

TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage, is for:—
The United Kingdom, £1 4s.;
Abroad, £1 8s.;
payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.

TO ADVERTISERS.—The following is an abbreviated Scale of Charges for Advertising:—Companies' Prospectuses, £12 12s. per column, or £30 per page; Companies' or Legal Announcements, 9d. per line, with a Minimum charge of 7s. 6d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., 8d. per line with a Minimum charge of 4s.
Displayed (Trade) Advertisements of 2 inches in depth (or more), Single Column measure, will be inserted at the following rates:—For 52 insertions 2s. 6d. per insertion for each inch in depth; for 26 insertions 3s per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion for each inch in depth. Terms for special positions and contracts may be had on application.

*** ADVERTISEMENTS (which should in all cases be sent direct to THE BUSINESS MANAGER) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C. until 9 p.m.

Editorial and Advertisement Offices:
18, FINCH LANE, LONDON, E.C.

Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."
Codes used: "A.B.C.," Moreing's, and "Universal."

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LONDON: JUNE 20, 1896.

THE NEEDS OF WESTERN AUSTRALIA.

MR. W. A. MERCER is, by name, well-known to the investing public. He is a gentleman who has had a vast experience of gold mining in all quarters of the globe, and his knowledge of the gold mining industry of Siberia was made known to our readers just previous to his departure for Western Australia. To the latter colony he went out as the representative of the eminent firm of Messrs. BEWICK and MOREING, and by the work he has performed there he has, if anything, enhanced his great reputation, and constituted himself an authority upon the colony's resources. He has, indeed, done a great deal for the colony, of whose prospects he holds a very high opinion, but there is a vast amount of work still to be done, which, of course, is not in his power to perform, nor in that of any individual person, however able and skilful he may be. Nevertheless, if he is not able to perform, he is, at any rate, in a position to point out to those who can remedy them, the defects and obstacles which retard in a considerable measure the progress of the mining industry. It is true that the Government have done a great deal to assist it but they, of course, have not yet done all, and a great work lies before them waiting to be accomplished. But, naturally, it is more easy to see where defects exist than to suggest the best remedies to be adopted, and hence the advice of experts of vast experience must be heartily welcomed and seriously weighed. Mr. Mercer, therefore, has taken the opportunity of giving his advice upon the position of the industry and his opinion upon the reforms necessary to promote its welfare. It is a well-known fact that a great number of the mines in the colony have produced gold of a very high average, running a great many ounces to the ton, but it does not follow that this will be the normal yield of the ore. On the contrary, it is to be expected that as the fields develop, and as they go down in depth, the companies will have to depend upon ore of a much lower grade. In that case, therefore, one of the principal problems to be solved is how to reduce the cost of getting the gold. At present, it is certainly very heavy, owing, of course, to the difficulties which have long ago become a matter of common knowledge to the world. Not only will the cost of working have to be reduced, but it will have to be reduced greatly, before the industry can be considered to be on a satisfactory basis. But the great question is, How is it to be done? Of course, one effective method would be to cheapen the price of labour, for high wages are not conducive to the economical working of a mine, but in the colony the necessaries of life are very dear, and if wages were lowered then starvation would result. Therefore, before labour can be cheapened, the price of food stuffs must be reduced, but this can only be done by repealing the duties upon them. This is a remedy which finds great favour with the colonists, and Mr. MERCER agrees that it would certainly go far to satisfactorily solve the difficulties besetting the industry. But he does not see how this can be done, as it is necessary for the Government to have revenue. If, however, revenue can be derived in some other way—as the Western Australian Press contend—then, by reducing the cost of the necessaries of life, labour can be cheapened, and thus one deterrent to the development of the fields be removed. Then, again, there is much necessity for reform in the mining laws of the colony, and Mr. MERCER makes some suggestions which will meet with universal endorsement, and, we hope, will be seriously weighed by the Government. He thinks that one of the most important alterations needed is to enable the labour on leases belonging to one owner to be amalgamated. The fact that leases do not adjoin should not be held to the disadvantage of those working a group, and the owners should be allowed to work their properties in a business-like fashion so long as the labour covenants for the whole are fulfilled on one. He does not urge any alteration in the number of men employed, for the reason that, so far as the practical working of the properties is concerned, the number required by law is not nearly sufficient to carry on the work. What he does approve of, however, is the suggestion to the effect that after a certain amount of money has been expended in labour on any mining property, those who have borne the expenditure should be very considerably relieved from the dangers of forfeiture. Indeed, he considers it most essential to the welfare of the industry that the Government should take such steps as will secure absolute certainty and permanence of title. Elsewhere, we publish an article from the pen of Mr. RAYMOND RADCLYFFE, who, in a very forcible manner, emphasises the extreme necessity of reform, and when such eminent men, to say nothing of the ordinary individual, who has great interests at stake in the country, come to such a conclusion, then it is time for a change to take place. We would ask our readers, for their own sakes, to read and well digest Mr. RADCLYFFE'S article, and they will quickly see how the interests of investors are exceedingly jeopardised by the anomalous state of the law. Already, great losses have been incurred by this insecurity of tenure, and there is no doubt they will be followed by many others, unless the Government quickly take the matter in hand. Unless they remove the existing anomalies, then we are afraid there is more than meets the eye in the pessimistic forecast of Mr. RADCLYFFE:—"Unless some alteration in the gold laws of West Australia be soon made, the position will rapidly deteriorate. Jumping cases will increase; at the present time they are actually on the increase, and we shall one day be face to face with a serious calamity. A big company will find that it has lost one of its best claims. The public will then learn, too late, upon what terms of tenure they have put their money into Westralian ventures. They will decline to find more money. The whole portion of West Australia is bound up in the prosperity of its gold-bearing reefs. Westralia is living upon English capital. The Government will, therefore, do well to be wise in time; alter its laws before it is too late."

Mr. MERCER also favours the amalgamation of adjoining lease for the purpose of development. There is no doubt, in the least, that great advantages would result from this, and we should like to see it adopted as early as possible. Then Mr MERCER has something to say upon the all-important and engrossing question of the permanence of the reefs. Investors and others will be encouraged to hear that he has very little doubts upon this. He thinks that there is every reason to look forward to the deeper sinking of the shafts with faith and confidence in the results. He has no doubt that as they go down the reefs will be truer and more settled, and, what is more, be equally rich, but before waiting to have reliable evidence of this, he would like to see one of the big companies put a shaft down to test the permanence, or otherwise, of the colony's ore bodies. This is certainly a capital suggestion, but, unfortunately, one not likely to be adopted. There are so many difficulties in the way that it is not likely any company will endeavour to surmount them. Another capital suggestion he makes is that whilst some of the large companies are waiting for machinery, they should at any cost make a trial crushing to show the shareholders that the gold is really there, for if they could have some reliable evidence of this, not only would they be more patient in waiting for dividends, but it would deepen their confidence in that mine in particular, and in the colony in general. Other minor suggestions are that the mining leases should be submitted to a commission consisting of the principal persons who have at heart the welfare of the industry, and also that an establishment of a mine owners' association would be likely to greatly benefit the colony. As we have already said, all these are capital suggestions, and, if adopted, would materially help forward the progress of the industry.

MINING IN VICTORIA.

ONE of our colonies, about which we are destined to hear a great deal in the not distant future, is Victoria, a goldfield which is steadily, and most determinedly, coming to the front. The past history of this colony is a matter of common knowledge. It is full of romance, as the history of most gold fields is. But for all that, it would be well to forget it, and to turn attention only to its present remarkable vitality and its brilliant prospects. Mr. THOMAS CORNISH, who has spent years in the colony, and who knows it intimately, has contributed article after article to our pages, drawing attention to its wonderful gold wealth, and giving advice how to avoid the excesses of the past, by the exercise of moderation and judgment in the future. The evidence which he alone has produced is conclusive and convincing, apart altogether from articles which have appeared from our own pens and from other authorities. Everything that has recently been published has been amply confirmed by our correspondent, whose letters have appeared during the last three or four weeks. Confident in the resources of the colony, confident that it is destined to achieve great things, and confident that in the success of the future it will retrieve the errors and failures of the past, we have established this correspondent in the colony, whose letters we strongly advise our readers to peruse carefully, for from the information they will thence gain they are likely to derive considerable benefit. A great number of properties are on their way to the London market for flotation into companies, and as these will be constantly increasing, investors may look forward to numerous invitations to subscribe the capital which the promoters will ask. Now it is safe to say that some of these properties will not be genuine, but palpable swindles; hence circumspection and judgment must be exercised to avoid disaster. In this connection we would ask investors to read Mr. CORNISH'S article which appeared on February 29th last—an article, by-the-bye, which has been circulated broadcast in Victoria, and struck terror into the company promoter. Those who have the interests of the colony at heart, and who are anxious only that it shall legitimately and honestly occupy the place to which it is entitled, naturally wish to avoid a repetition of the past, for that is but a sure way to ruin the industry, instead of securing its welfare. There is only one sure way of attaining this laudable end, and that is to bring to the attention of the English capitalist only properties of proved merit, which can stand a thorough inspection, and which are honest and genuine speculations. In exercising discretion and judgment investors will be safely guided by the articles of our correspondent, whose sole interest is to give wise advice, to indulge in no exaggerations, and to record facts which will stand the minutest inspection and test. Already he has furnished ample evidence of what the most promising properties are, and, of course, these will be followed up by descriptive accounts of other mines, all which, naturally, will assist the investor in his choice. In addition, he has furnished most demonstrative evidence of the richness of the colony; but even had he hitherto said nothing, what he said in his letter last week is amply conclusive. "There appears no longer any doubt," he says, "as to Victoria being a very rich gold mining country when her mines are worked with skill and energy, and the wonder is that European capitalists who still hanker after Australian mines do not pay more attention to this gold region. If Victoria cannot promise them marvellous returns, it can and does offer *bona fide* mines, as the following abstract of quarterly yields will show:—Bendigo, 41,176 ounces; Beechworth, 21,348 ounces; Gippsland 21,131 ounces; Ballarat, 35,883 ounces; Maryborough, 17,011 ounces; Castlemaine, 12,445 ounces; and Ararat, 5564 ounces." These figures positively prove that the colony is rich, and also that it is progressing at a steady and sure rate. They still sustain the improvement that was noticeable for the past year, which showed an increase of 19,466 ounces over 1894, which latter year showed an improvement over the previous 12 months of 2454 ounces. Bendigo, of course, shows the greatest increase—namely, 7028 ounces; Gippsland following with an increase of 2827 ounces, and Maryborough 809 ounces. On the other hand, decreases are shown by Ararat, Ballarat, and Castlemaine. The yield from the Maryborough district is the largest for the last eight years, whilst that for the Gippsland district is three times larger than the yield five years ago. The Omeo district, of which our correspondent has already spoken in the most flattering terms, yielded gold four times greater than that of the first quarter of 1892, whilst the output in the Rokewood and Pitfield districts was 3495 ounces, which shows an immense increase over the output of the corresponding quarter of 1894, which only amounted to 848 ounces. The dividends declared the first quarter of this year also show a commanding improvement over those of last year. After contemplation of these figures, no one can doubt that Victoria is destined to play a great part in the future production of the precious metal, and to command the attention of investors and speculators.

GOOD NEWS FROM BRITISH COLUMBIA.

THAT British Columbia is coming more and more into favour every day is a fact which is forcibly intruding itself upon everybody's notice, for investors are gradually coming to the opinion that it is one of the coming gold fields, and that in the early future it will be as familiar on the Mining Market as Western Australia itself. This is proof, of course, that the public are opening their eyes to the evidence which is regularly forthcoming of the wonderful richness of the colony, and that they are becoming impressed with the fact that if they do not take advantage of it others quickly will, and thus reap the enormous benefits which it is destined to confer upon the most enterprising. Day by day important discoveries are being made throughout the colony, with such a rapidity, indeed, that it is almost impossible to keep pace with them. One of the most significant is the one we announced some two or three weeks ago—viz., the one at Lillooet, where the gold-bearing vein can be traced a long distance, and where the ore being milled assayed 21 ounces. Indeed, one cannot make the most of this discovery. About 85 per cent. of the quartz is free milling, and 500 lbs. gave an average through the mill of $400 per ton. No work, to speak of, has been done to prove this property, as it was only discovered a few weeks ago by a half breed. Since then, however, some Vancouver capitalists have been up and stripped the leader for 200 feet, showing ore from 8 to 10 feet in width, the assays running to a high average. The quartz mines in Cariboo are being examined by representatives of English investors. The Cassel Gold Extracting Company have a cyanide mill at Barkerville, and this will be the means of assisting in testing the value of the ledges. As Lillooet is on the road to Cariboo, the discovery there will materially assist in mining throughout the district. News from other districts is also very encouraging. The Slocan Star has declared a dividend of 10 per cent. on its capital stock of £1,000,000. Last fall it paid $50,000. Since then, besides earning enough money to pay the dividend, it has made enough to put in a new concentrator and other works costing $125,000. The Slocan Star is a silver lead mine, the property of Minnesota capitalists. It has an enormous ledge, which is tapped by four tunnels, at various depths, the lowest being about 500 feet below the outcrop. Another still lower has been commenced. The company has just concluded a contract with the Omaha and Grant smelter to supply 1500 tons of ore and concentrates a month for eight months. The Hall Mines' smelter continues to give the greatest satisfaction. It was built to handle about 100 tons a day, and it is actually putting through over 1000 tons a week. The company is to be congratulated on its superintendent, Mr. PAUL JOHNSON, and on its general manager, Mr. H. E. CROASDAILE, who first launched it in London, and has since successfully steered it through some difficult places. The company has just purchased the Iroquois, a valuable galena claim, lying adjacent to the Silver King. There is considerable movement among the quartz claims on Toad Mountain, and active operations are likely to commence on more than one immediately. In fact, work has already commenced on some from which the snow has gone. The season is an exceptionally backward one, and there is still a great deal of snow in the hills. At the Silver King the snow is at least 10 feet deep now. The Poorman, a quartz mine about 4 miles from Nelson, has just got its new compressor plant into working order, and operations have begun. A shaft is being sunk from the bottom of which a tunnel will be driven in on to the vein. The era of gambling in stocks and shares has begun at Rossland and Spokane. There is no regular association of brokers to regulate the listing of stocks, and all and everything is quoted. Most of the companies are formed under the laws of the State of Washington, which are elastic. The method is this: four men (say) own a claim. They then form themselves into a limited company, with a capital of 1,000,000 shares of $1 each. This company buys the claim from the original owners for $1,000,000 paid in shares. Each of the four men receives 250,000 shares, of which he contributes about 50,000 to "Treasury" Stock. This is issued to the public as fully paid stock at about 5 cents or less per share. Some of the companies quoted do not even own their claims, but simply hold them on bond, of which the final payments have yet to be made. They are unsafe for the public at a distance to deal in. The proceeds of the Treasury Stock are supposed, of course, to be devoted to the purposes of the mine, but the shareholders are quite in the hands of the directors in the matter, who are only restrained by the very inadequate laws across the boundary. Some companies, however, are good, and are incorporated in British Columbia. In this case the shares are unassessible, except by the creditors in the event of the winding-up of the company.

GOLD MINING REVIVAL IN UTAH.

UTAH is not regarded by the English mining investor with any feelings of deep affection; on the contrary, the mere mention of it is likely to stir up feelings of disappointment, of resentment more than gratitude. Utah has not made a great name for itself as a producer of the precious metal, but this is no evidence that gold will be found there in the future in large quantities. As a matter of fact, there has, of late, been much activity displayed throughout the State, and very promising discoveries of the precious metal have been made. But, at the present moment, this is not likely to deeply interest the average investor, who has his affections too greatly concentrated upon other and more promising gold fields. Besides, Utah would have to achieve remarkable things in order to remove the general prejudice against it, and to retrieve the disappointments and failures of the past. The present activity in the State is due to the one great cause which has been responsible, in a considerable degree, for the revival of mining all the world over—and that is, to the silver depression. But Utah, probably, has been more asleep and less progressive than most gold fields. Those who should have been the foremost to seek the welfare of its mineral industry seemed the most incapable, and hence, instead of keeping pace with the times, they preferred to stand still and, in some cases, even to retrograde. But, at last, they have been energetically awakened, and casting off their conservatism, and welcoming new orders and methods, they are making up for the lethargy of the past, with results which they must regard with feelings of extreme gratification. Silver mining, which, in the past, was considered the mainstay of the State, has now given way to gold mining, with results that have been greatly surprising to those who thought little of the country's gold possibilities. Our contemporary, the *Engineering and Mining Journal*, speaks in warm terms of the prospects of this revival, and says:—"From the older silver and gold camps we are receiving the most encouraging accounts. At Park City the Ontario proceeds on the even tenor of its way, and continues paying dividends, while new strikes are reported in Daly ground and extensions. Tintic and Bingham are quiet, but still productive. The Camp Floyd district reports new discoveries of low grade gold ore, which in that district can be and are worked at good advantage. All are familiar with the Mercur mill records. Now we have a fresh one from the Geyser, where the average value of the ore milled in April is stated at only $3·92 per ton; the entire cost of mining and milling was but $1·97 per ton, and the profit on this rather low-grade rock was, therefore, $1·95 a ton. Thus at this 50-ton cyanide plant the handsome return of about $100 a day was made on less than $4 ore. In the Camp Floyd district the ore is by no means all of the low grade sort, however, but this one example shows what can now be done with large bodies of $4 or $5 gold rock, not truly free milling, when such a small plant is so successful. The latest information, which we believe to be more than rumour, is that the famous Centennial-Eureka Mine has been sold in England for $4,000,000. We do not know whether this sum is actually correct or not, or the exact conditions of sale, but the quoted price of the stock last week and the dividends paid to date show the high estimation in which the property is held. The $50 shares were selling at nearly $80—making a quoted market value for the property of about $2,500,000—the dividends to date amounted to $1,680,000." This certainly is evidence that the revival has set in with a will, and it should prepare us for some developments of a striking nature in the future. At the present moment, according to our contemporary, main interest centres in the new discoveries around Marysvale, from which already the usual exaggerated reports have come, but which seem to have something substantial to rest upon.

A SCHOOL OF MINES FOR WEST AUSTRALIA.

AT first sight the superb collection of minerals in the West Australian colony would seem to be the proper appanage of a School of Mines, but the fact remains that for the present there is no such institution in Perth. This is not because the want has not been keenly felt. On the contrary, there is a general agreement among the authorities that such a School would work inestimable benefit to colonial mining. The advantages centered in such an establishment are sufficiently large to escape the superficial observer. They are not confined to the education of intending mining engineers, though the supreme benefits resulting upon the early-training of mining students in the field they have selected for their life work—giving, as it does, the special local ply to their skill—approach to the incalculable; but a well managed School of Mines serves other purposes—and of the greatest importance—than this. The School may be made a centre for the amassing of fruitful information concerning the special geological types to be met with in the colony, and the various modifications of mining method which experience has suggested to meet the peculiar character of the auriferous deposits occurring in the various districts of the colony. There should certainly be no occasion to defend the application of a sufficient sum from the Government funds to meet the cost of establishing and maintaining the School in a proper state of efficiency. Who will deny that the material prosperity of West Australia depends wholly upon the successful working out of its mineralogical future? It should be the sacred charge of the Government to do whatever they can to prevent the resultless expenditure of private moneys in the prosecution of futile and mistaken enterprises, and this they can do in the manner we have ventured to indicate. There is no branch of industry in which experience teaches so much and is so invaluable as in mining, and the only way in which it can be turned to the best possible account is by giving to the industry an organised centre, where the results of mining efforts in the various directions are codified and placed in their best form at the disposal of those by whom they are most needed. The West Australian Government cannot reasonably advance the want of money as an excuse for not founding the School. A National Arts Gallery has been built up out of the Colonial funds, and it seems to us that a proper educational establishment for miners should have preference over this concession to the local artistic taste, necessary and laudable though it certainly is. Advocates of West Australian mining are apt—too much apt, perhaps—to speak of their colony as the premier mining country in the world. This may be taken by some as a forecast for the future rather than as an estimate of the present, but even then it may be asked, how comes it that a country concerning which such flattering and liberal expectations have been formed is yet without its School of Mines In any case, it is satisfactory to reflect that so pronounced a deficiency cannot remain long. Hitherto, as a hundred accomplished improvements in the colony attest, the Government have not shown themselves backward in recognising the claims of the industry to their close and favourable attention, and it may be hoped that the deficiency in question has only to be brought to their intimate knowledge for the remedy to be applied.

MINING PROGRESS AND RAILWAYS.

IT is of excellent augury for the continued success and extension of mining operations in that auriferously-blest land, South Africa, that members of Parliament who correctly entertain a high idea of its enormous capabilities are losing no opportunity of continuing to press upon the Government of the Mother Country the desirability of further railway developments. Mr. HANBURY has, during the week, caused the following motion to appear in his name amongst the Parliamentary papers giving the daily business:—"That it is expedient to

make provision for the construction of a railway in Africa from Mombasa to the Victoria Nyanza, through the protectorates of Zanzibar, British East Africa, and Uganda, to authorise the issue out of the Consolidated Fund of any sums not exceeding, on the whole, £3,000,000 for that purpose, and to authorise the Treasury to borrow for the purpose of providing money for sums to be issued out of the Consolidated Fund, or for repayment of sums so issued by means of terminable annuities; such annuities to be paid out of moneys to be provided by Parliament for foreign and colonial services; and if these moneys are insufficient, then out of the Consolidated Fund." Undoubtedly, the Government ought to take this vast question in hand in a wholesale and comprehensive manner. Much, we admit, has been done, but much more remains to be accomplished, and every pound spent in railways in that richly-dowered land is, it should be remembered, expenditure of a reproductive character, and, therefore, the truest economy. To turn to another part of the world; whatever mineral treasure the most accessible portion of China may possess is likely to be exploited much more freely than hitherto if practical effect attends the prayer of last Saturday's deputation to Lord SALISBURY. That body impressed upon the Prime Minister the views of the Associated Chambers of Commerce. It is felt that the connection by railway of a seaport in Burmah, with South-West China at Ssumao, is greatly required in order to open out to British trade our new territories in the basin of the Mekong, and to enable British manufacturers to compete with those of France in Northern Siam and in South-West China. The deputation, therefore, urged upon the Imperial and Indian Governments the necessity for such a railway leading to Ssumao, either from Moulmein, *vid* Siam, or from Rangoon wholly through British territory, *vid* Karenni, to be undertaken or guaranteed by the Government; and also for permission to be obtained from the Chinese Government for the continuation of the railway through Ssumao into the Chinese dominions, on conditions not less favourable than those granted to the French for the continuation of their railways into China.

AMERICAN LEAD PRODUCTION.

THE statistics of the lead production of the United States for the past year are not likely to encourage those who are anxiously looking forward for a decrease in the output, and a rise in the price. These statistics, which have been prepared by the United States Geological Survey, are as follows:—

State or Territory.	1894. Net tons.	1895. Net tons.
Colorado	50,613	46,984
Idaho	33,308	31,638
Utah	23,190	31,305
Montana	9,637	9,802
Nevada	2,254	2,583
New Mexico	2,973	3,040
Arizona	1,480	2,053
California	478	949
Washington, Oregon, Alaska, and South Dakota	150	381
Missouri, Kansas, and Wisconsin ..	8,614	13,706
Total lead contents of ores smelted..	132,697	142,441
Contents Mexican and Canadian ores	*21,000	†21,477

* Estimated. † Of which 5040 are Canadian.

It will be noticed that there was a decrease both in Colorado and Idaho, but this is more than made up for by the increase in Utah, a State which, as we show in another article, intends to make a name for itself as a producer of gold. Assuming that the waste and loss in smelting amounted to 6 per cent., then there were derived from the ores mined in the United States, worked by smelters and desilverisers, 124,700 net tons in 1894 and 134,900 net tons in 1895. Adding the production of soft lead from Kansas, Missouri, and Illinois ores, which was 37,696 net tons in 1894 and 39,890 net tons in 1895, the following amounts are reached as closely representing the product of lead from American mines:—162,386 net tons in 1894 and 174,790 net tons in 1895. According to direct returns the total production of desilverised lead was 201,992 net tons. Of this a certain quantity was obtained from refining Mexican and Canadian base bullion (returned at 54,696 net tons), and from the lead contents of Mexican and Canadian ores (21,477 net tons as per returns). Making an allowance for waste of 2 per cent. on base bullion and 6 per cent. on ores, there was, therefore, included in the above 201,992 net tons of soft lead, 73,792 of foreign material, leaving 128,200 net tons of lead from domestic sources. This compares with 134,900 tons found by estimating on the basis of direct returns of the lead contents of ores from the smelters. This apparent discrepancy is probably accounted for by changes in the stocks of base bullion carried by refiners, by changes in the quantity of material in transit from smelters to desilverisers, and by differences between the actual metallurgical loss and that estimated. Under the circumstances, it seems justifiable to estimate the lead product of the United States for the past year at 161,440 net tons.

MR. BARNATO'S VIEWS OF SOUTH AFRICA'S FUTURE.

LITTLE inspiration is needed to divine what are Mr. BARNATO'S views of the future of South Africa. Would it not cause intense surprise to be told that they were unfavourable and pessimistic? or even that they were but moderately hopeful? What we expect from Mr. BARNATO is an enthusiastic opinion, and anything less temperate than that would make us wonder. South Africa has made Mr. BARNATO, and in return he has done much for it. It is the general opinion that it was he who prevailed upon President KRUGER to exercise clemency in the case of the reform leaders, but we think that even if Mr. BARNATO had never troubled himself in the matter, the end would have been the same. The President knew as well as Mr. BARNATO that clemency was the wisest policy, and no arguments from anyone were needed to make this more convincing to his mind. Nevertheless, everybody is grateful for what he did do, and convinced that he was responsible for the conversion of the President, and, consequently, for the release of the prisoners, a banquet was given in his honour last Saturday evening by the influential portion of Johannesburg, in recognition of the services recently rendered by him in the cause to which we have referred. It was at this dinner that Mr. BARNATO gave utterance to his views upon the future of South Africa, and they certainly echoed what every one must have divined. He described the Transvaal as the future financial Gibraltar of the world, and asserted that it was the richest mineral country on the globe. It possesses rich gold mines, abundant coal, and water in close proximity thereto, combined with a delightful climate, colonial energy and enterprise, European capital, and the best blood of the Mother Country. Dealing with general matters relating to the Transvaal, Mr. BARNATO advocated the expropriation of the Netherlands Company's railways in the State, and the buying out of the Dynamite Concession by raising a loan. Money would be forthcoming for the purpose at 3½ per cent. A Railway Convention and Customs Union, with all the neighbouring States, would be the beginning of the true solution of the South African problem, and would cement the whole of South Africa together in so far as its domestic relations are concerned.

FRONTINO AND BOLIVIA.

THE progress of this very successful company has for some time now been retarded by difficulties and obstacles which have occasioned much anxiety to the board. But, as usual, they have been met by that energy and ability which the directors and officials alike always display; and, as a consequence, they have been overcome to a degree which is as astonishing as it is gratifying. The effect upon the company, therefore, has not been so great as it would have been upon most companies where that energy and skill are wanting; and, consequently, the shareholders, conscious that their interests, are ably looked after, display little fear and disquietude. For instance, owing to unforeseen circumstances the past half-year, as regards profit, has not been anything like so successful as the past half-year, notwithanding that there was an increase of 1852 tons crushed, and an increase of 1016 ounces of bullion produced. To set against this there was a decrease of 21 grains in the yield per ton, which, of course, has told a serious tale in the results of the half-year. During the first four months of this period work at the mines was much interrupted by a severe drought, and the returns have suffered somewhat through a falling off in the yield per ton from Silencio. In addition to the drought, some damage was done to the water courses when the rain set in, whilst the whole of the expenditure incurred during the half-year in the bringing of the Tias water, the erection of the Salada new mill, and the fitting up of the electric lighting at Salada, has been charged to the current cost. In consequence of this the profit has only amounted to £5580 4s. 1d., as against £10,537 15s. 5d. The profit left undivided at the 30th June, 1895, was £31,427 13s. 6d. Out of this sum a dividend of 1s. a share was paid in August, and £300 put to the reserve fund; in October an interim dividend of 6d. a share was paid and £150 put to reserve, such payments amounting altogether to £10,099 13s., leaving £21,328 0s. 6d. To this sum has now to be added £5580 4s. 1d., the ascertained profit for the half-year, making altogether £26,908 4s. 7d. Out of this sum a dividend of 6d. per share was paid in January last, and £150 put to reserve. The directors now recommend a dividend of 9d. per share, payable at a date to be fixed at the forthcoming meeting. After these several payments a sum of £18,716 17s. 1d. will remain to the credit of profit and loss.

SHEBA.

PESSIMISTS in regard to the prospects of the Sheba Company will not find much colour or justification for their views in the statement laid before shareholders on Wednesday by Mr. GARLAND SOPER. The occasion, not being the annual meeting, but the half-yearly convocation, which, by an admirable practice, is held for the purpose of bringing the shareholders up with the latest advices, the Chairman's speech was necessarily brief and general; but its tone was especially encouraging, and more so since the language was moderate, and the views expressed as to the future, seemingly in every case founded upon a grasp of the facts connected with the mine. Among the variety of anticipations which were elicited at the meeting, two stand out as especially satisfactory. In the first place, the board are confident that there will shortly be a marked reduction in the expenses; and, secondly, the new manager, Mr. BLOW, hopes shortly to have an additional 60 stamps at work upon thousands of tons of 12 dwt. ore, which are to be got from the mine. The importance of the first matter—the reduction of costs—could hardly be over-rated. The question of mining cost is of the first moment everywhere, but especially so in South Africa, where the ore runs at so low a grade of value that the smallest rebate in outlay produces a very great effect upon the company's financial results. Nor will the shareholders have heard without great satisfaction that the stamping capacity now at work is shortly to be doubled, so that a large increase in the returns may shortly be expected. As to the water power—about which one of the shareholders at the meeting appeared to be unduly solicitous—the Chairman's statement was emphatic. There can be no doubt, as he pointed out, that there is an abundance of water power for all the purposes of the company. The change in the management of the company need not be a matter for unqualified regret. Mr. HOWARD HILL has served the company, as the Chairman stated, "with conspicuous integrity, with unswerving attention, and with great ability;" and so long as the mining operations were in his hands the shareholders might well rest contented that their mine was being worked in a miner-like way, and was being turned to the utmost possible limit of profitable account. As some small set-off, however, to the sorrows of losing an old and able servant, the shareholders will have the advantage of knowing how the mine appears to a new-comer prepared by considerable technical knowledge and long experience, to form a sound judgment. The great factor in the company's future prosperity is, undoubtedly, the maintenance of a good grade of ore; and as to this some adverse opinions have been expressed. The recent marked improvement in the mine product was foreshadowed in our columns, but its continuance false by the London directorate, who disclaimed all knowledge of the improvement in language that implied a belief that it is, however, a more problematical matter; and it would not be altogether unreasonable to hold that the law of compensation might work in the case, and that the improvements might be followed by a corresponding decline in value. Concerning the present and actual condition of the mine, however, the Chairman's statement was wholly satisfactory. "The mine at its various levels," he said, "is maintaining its reputation," which certainly does not give much ground for fearing that any immediate falling off is to be apprehended. In any case, the shareholders will know that their affairs are in business-like and capable hands, that everything possible will be done to make the best of the mine, and—what does not always follow from this—that they will be kept fully posted up in whatever information the directors possess.

WEST AUSTRALIAN TRADING SYNDICATE.

AN undertaking which promises well for the future—and has at the outset achieved a success that may fairly be called extraordinary—is the West Australian Trading Syndicate, formed for the purpose of supplying the necessaries of life to the mining districts of West Australia. It is obvious that in a new district, where so large an influx of people has taken place recently, the opportunities for legitimate trade at highly remunerative prices are great. This is, moreover, attested by the considerable success which, even at this early stage in the company's history, has been attained. A dividend for three months, at the rate of 100 per cent. per annum, is a pleasant little corollary to a statutory meeting, and must be considered by the shareholders, who are generally rather sanguine than the reverse, as an indication of what may be expected to be attained in the future. It would, however, be dangerous to suppose that the present will be found to be a correct forecast in all respects for the future. There will be more competition to contend against in the months to come, and it is hardly to be supposed that when this proves to be the case, the company will find it all such plain sailing as their present experience might lead them to expect.

HERR SCHMEISSER'S REPORT.

WE wish to draw the attention of our readers to the verbatim translation, published elsewhere, of Herr SCHMEISSER'S report on Western Australia, which appeared in the *Zeitschrift für Praktische Geologie*. The concluding portion of it we hope to publish next week. It is impossible to exaggerate the importance of this report, extracts of which, it will be remembered, appeared some weeks ago in the *Times*. When the whole of it has appeared, our readers will note that the extracts published in this newspaper were not by any means the most important. We hope to draw fuller attention to this next week, and also at the same time to compare Herr SCHMEISSER'S report on Western Australia with his former one on South Africa.

THE MINING MARKET.

FRIDAY EVENING.

Ascot rivalry causes dulness in Kaffirs and Kangaroos —New Zealanders maintain their firmness.

THE attractions of Royal Ascot have proved too strong for the Mining Market, which has relapsed into a state of stagnation owing to the absence of the majority of the leading spirits, all on pleasure bent. The fact that we have experienced a burst of almost tropical heat has contributed, in some degree, to the apathy characterising the operations of the few who remained at their posts. The cause of the lull is so thoroughly understood that no one appears at all uneasy about it. The set-back that occurred in Kaffirs about Wednesday was of no serious importance in proportion to the preceeding sharp rise, whilst the steady undertone of the market has been quite sufficient to reassure the critical. The big Kaffir men have apparently given up all idea of securing lines of cheap stock, and are agreed in the policy of working for higher prices when conditions are favourable. Such a moment, however, will not occur during a brilliant Ascot week. The actual changes of the past few days call for little in the way of detailed comment. The public have undoubtedly been coming back to the market during the past Account or two and is quietly on the feed, more particularly for the lower-priced shares. The uncertain factor in the situation would seem to be the Paris Bourse. On Wednesday afternoon a smart little rally in Kaffirs was attributed to Paris buying, but, on the other hand, the preliminary dulness may have arisen from weakness in the same quarter. A rumour has been in circulation to the effect that the powers that be in Paris are not anxious to extend facilities for the continuation of speculative purchases to any but the strongest operators. Such an announcement was bound to produce some fidgetting. The Westralian Market has shown less backbone than the South African. The chief strength has been in New Zealanders, whose supporters have relaxed no efforts towards maintaining the buoyancy which has been so striking a characteristic of this department during the past three months.

On Saturday the lovely weather sent a good many members holiday making, but, nevertheless, a large business was done on account of the public, and several substantial rises were scored. Diamond shares were strong, and West Australians

kept firm, with strength in specialities. New Zealand shares were as active as ever, and continued their progress towards a higher level. On Monday, a disposition became evident to curtail commitments in anticipation of the exodus to Ascot. West Australians were irregular, with a duller business done than for some time, but New Zealanders were strong. Indians were quiet, and Miscellaneous generally neglected. Tuesday was a record day in the matter of heat, and the markets quickly developed a relapsing tendency n the absence of many prominent leaders. Changes, however, were not important. In West Australians the business was almost confined to the three or four shares which have recently been the subject of manipulation, such as Joint Stock Trusts and Royal Sovereigns. New Zealanders again assumed pride of place, and were active and strong as ever. Indians were steady and other miscellaneous quiet. On Wednesday the tone in Kaffirs and Kangaroos was unmistakably flat until the last hour of business, when Paris buying picked prices up a bit. In the absence of support quotations gave way, and this proved the signal for the rumour-mongers to become busy. All sorts of preposterous stories were soon in circulation, but after all their effect was not very serious, as there were few real sellers about. Dealings in New Zealanders were less spirited, though the set-back in two or three discriptions was fully counterbalanced by the gains in others. Thursday, Ascot Cup Day, took away more members than ever from the House, but despite the thin attendance there was rather more business doing, and the tone was distinctly more cheerful. There is very little to report to-day. The smallest fractions have been added to the prices of a good many Kaffirs, and there is a cessation of the pessimistic talk which was so prevalent two days ago. The End of June Settlement is upon us, Pay Day being fixed for Friday next, so that Tuesday will witness the carry-over. We are by no means dissatisfied with the under current in Africans. The conditions of this week have been hard to contend against, and the market seems to us to have come well out of the ordeal. Matters are more undecided in West Australians, but even here there is not serious ground for discouragement.

South Africans.

Disturbing reports as to the prevalence of rinderpest in Rhodesia, involving a sensational rise in transport rates, have had a marked effect upon Chartered which close ½ down at 3 3/16, after being below 3½. A confused story as to recall of Mr. Rhodes, with further imaginative stories as to the exaction of indemnity from the Chartered Company, have played their part in the week's fluctuation. Goldfields Deferred have sympathised with Chartered, and on Wednesday were as low as 12⅜, finishing to-night ⅜ down at 13½. Goldfields Deep went to 10⅜ at the worst and close ¾ lower at 11½, with Gold Trusts ½ down at 8⅝. Land companies generally have given way, an exceprion being Mozambique, ½ higher at 1 1/16, New Africans have fallen ½ to 3½, Oceana ½ to 1¾, Rhodesia Exploring ½ to 7½, Willoughby Consols ½ to 1 1/16, Bechuanalands ⅛ to 1⅜, Alexandra Estates ½ to ⅞, Exploring Land and Minerals 3/16 to 1½, and Mashonaland Agency 1/16 to 2 1/16. The Barnato Group has been dull all round, with declines ranging up to ½ in Croesus at 1 1/16, Glencairn at 3 1/16, Ginsberg at 2, Johannesburg Investment at 3 1/16, Langlaagte Royal at 2 1/16, New Primrose at 5⅛, Buffelsdoorn at 2¾, Barnato Consols at 3½, and the Bank at 2 1/16. Nothing fresh has transpired in the market concerning the contemplated amalgamation. Robinson Stocks have been dull, declines of ½ being shown in Randfontein at 3 1/16 and Block B at 2. East Rands, which had had a conspicuous spurt, have given way under realisation, but after dipping to 8 are finally only 5/16 down at 8⅜. Losses of ½ are seen in the subsidiary Comet at 3½, and St. Angelo at 5½. It is expected that the flotation of the Cinderella Deep will soon provide another bonus to East Rand holders, and this will also bring prominent the Johannesburg Goldfields a part of whose property the Cinderella originally was. "Little Johnnies," as these shares are generally called, were as good as 11s. 6d. buyers in the early part of the week, but they have since relapsed to the neighbourhood of 10s., at which they are worth attention. Anglo-French Exploration close ½ down at 5 1/16. The Eckstein group shows the effect of neglect. Simmer and Jack have lost ¾ at 21½, Salisbury 1/16 at 4½, City and Suburban ½ at 4¾, Geldenhuis ⅜ at 4, Henry Nourse ⅜ at 6⅞, Heriot ½ at 9½, after going over 10, Modders ½ at 7⅝, and Wemmers ½ at 9½. Orions have been conspicuously flat, closing ¾ down at 1⅛. The most animated section of the African market has been that in which Lydenburg properties are dealt in. Transvaal Gold, for instance, are 10s. better on the week at 8⅛, and the Lydenburg Mining Estates, in which this company is to be merged, is expected to come into prominent notice with the return of normal markets. The small Lydenburg shares have lost a few pence in sympathy with the prevailing dulness, but Spitzkops are finally unchanged at 1 7/16. Knights have lost ⅜, at 7½, Meyer and Charlton ⅛, at 6½, Van Ryn ⅜, at 5, Worcester ⅛, at 4⅛, and Sheba 1/16 at 2⅛. An active business has been done in Rand Reefs, a low-priced share which attracted considerable attention last week. The price has advanced 1s. 6d. on the week to 13s., and insiders declare that a further spurt will be seen during the coming account. Lomatie is another share in which an advance is prophesied. The present quotation is about ⅞. Diamonds have been fairly active, but curiously enough to-night's prices are identical with those ruling a week ago. De Beers stand at 30⅞, Jagers at 12, and Leicester Diamonds at 3⅛. The last named are said to be bound for a higher figure. Dealings at present are for Special Settlement.

West Australians.

Dealings in West Australians have almost been restricted to a few specialities in which cliques are taking hand. For example, Royal Sovereigns, in which there is something of a corner, have been rushed up 1⅜ to 4½. Joint Stock Trusts, the strings of which are pulled by Mr. Horatio Bottomley touched 3⅜ premium on Monday, but have since relapsed to 2⅜ premium, marking a gain of ½ on balance. Associated closed below the best at 3⅛, and Associated Southern, after being carried up to 2, are finally 1/16 better at 1⅞. Great Boulders rallied to 8⅜ in the middle of the week, but are now unchanged at 8. North Boulders have lost 1/16 at 1⅝, West Boulder ½, at 1 1/16, Hannan's Proprietary ½ at 2 1/16, Hannan's Reward ⅜ at 3⅛, Star 1/16 at 1⅜, True Blue ½ at 1½, Lady Loch 1/16 at 3⅛, Lake View South ½ at 2⅛, Ivanhoe ⅜ at 7⅛, and Golden Horseshoe 1/16 at 2. The Menzies Group have been dull and declines of ½ to ½ are shown in Consols at 1, Crusoe at 1 7/16, Reefs at 1 1/16, Florence at 2⅛, and Lady Shenton at 3. White Feathers are 1/16 down at 2⅛, Wealth of Nations ⅜ lower at 1⅜, and Hit or Miss dull at 2 1/16. Ramage Syndicate shares are ½ easier at 4⅛, and losses of ½ are shown in the subsidiary Black Flag at 1⅜, and Golden Plum at 1 1/16. A brisk trade has been done in W.A. Goldfields, which are expected to benefit by the splitting operation. The shares are finally ½ down at 10½. Hampton Plains have shed 1/16 at 5½, Mainland Consols ½ at 3⅜, London and Globe Finance ⅜ at 1 1/16, and Colonial Finance ½ at 4½.

Miscellaneous.

Apart from the New Zealand Group there a little to report under this heading. Taitapu was rushed up to 4½ on Monday though the advance was not maintained. The price is finally ½ up at 3⅜. Consolidated Goldfields were 4⅛ on Tuesday, but relapsed this afternoon to 4⅜. Hauraki have scored 2s. to 21s. 6d. and Royal Oak 1s. 6d. at 4s. 9d., but Waihi has lost ½ at 7½, and Silverton ⅜ at 3⅜. Charters Towers shares are round about last week's prices. Mount Morgans has lost 1/16 at 3½, Mount Lyells ⅛ at 8½, Broken Hills 1/16 at 2½, and British 1/16 at 1½. Indians are rather off at the close. Champions and Mysore, both at 7½, show relapses of 1/16 and ½ respectively, with Nundydroogs and Ooregums both at 3 1/16, about ½ down. Copper shares have been strong, Tintos having put on no less than 1 7/16 at 24 11/16. Tharsis are 6, Capes 2 1/16, and Anaconda 7½.

STOCK EXCHANGE SETTLING DAYS.

CONSOLS.

Wednesday, July 1.

MINING MAKING-UP DAYS:

Tuesday, June 23. | Saturday, July 11.

MINING NAME DAYS:

Wednesday, June 24. | Monday, July 13.

ACCOUNT DAYS:

Friday, June 26 | Wednesday, July 15.

NEW ISSUES.

THE PIONEER DEVELOPMENT AND EXPLORATION COMPANY OF BRITISH COLUMBIA (LIMITED).

This company, with a capital of £150,000, in shares of £1 each (of which than £145,000 will be available for working capital), is formed to acquire by purchase, lease or otherwise, mining claims, leases, water, timber, and other rights, concessions and options in British Columbia and elsewhere, to work and develop the same, to prepare them to be formed into separate companies, and generally to aid in developing the mining, smelting, and other industries in British Columbia. As we show in one of our leading articles, British Columbia is one of the most promising gold fields of the world. It is obvious that there is a very large field for alluvial or placer gold mining in the Cariboo district, whence, by the expenditure of comparatively small amounts of capital, very large returns may be obtained. It is common knowledge that in East and West Kootenay and other districts, many quartz and other reefs and deposits have been discovered of great richness. Not only gold, but copper, silver, lead, platinum, cinnabar (quicksilver), and other metals appear to exist in large quantities. Enormous deposits of coal are also found, both bituminous and anthracite, and that of fine quality. The districts near the border line separating the United States from Canada have hitherto been chiefly exploited by Americans, by whom most of the mines are owned. The ore has been largely shipped by them to be smelted at Helena, Denver, Butte, and other American smelting centres, but now that better access has been provided to the Canadian Pacific Railway, local smelting works have been and are being erected, and a very profitable outlet for capital is being provided. The company will be represented in British Columbia by Mr. Charles Tetley, who has been settled there for many years, and who has a wide knowledge of the country, and is in personal touch with most of its influential men. Business of a very profitable nature should await the operations of this company.

ALMARAZ TIN MINING AND SMELTING COMPANY (LIMITED).

This company is formed to acquire, work, and further develop tin mining properties, and to erect smelting works for the production of ingot tin from the produce of the dressing and concentrating mills. The property is situated on the banks of the River Douro, a mile and a half from the village of Almaraz and about 12 miles from Zamora, the capital of the province. The mines are situated within from half a mile to two miles from the mill, upon a tableland 3000 feet, or thereabouts, above sea level. The ground is undulating, intersected by water courses which discharge into the Douro. The Douro is the main drainage channel of the district, and is about 50 to 70 metres wide, varying in depth from 4 to 6 metres, with a velocity of from 2 to 4 feet per second. Prospecting works and shafts, with all necessary auxiliaries have been made and erected during the past two years, and the properties proved to be of highly tin-bearing value. Developments are already sufficiently advanced to maintain an output equal to the present mill capacity, and which output is being added to daily. The following are the mining properties to be acquired:—

		Pertenencias.		English acres.
Fraternidad	Containing an area of	12	equal to about	30
Julia	"	12	"	30
Rosa	"	33	"	82
Mauricio (Abandonada)	"	12	"	30
Mascotta	"	6	"	15
San Andres	"	12	"	30
Juana	"	12	"	30
Emilia	"	6	"	15
Lola	"	40	"	100

The capital of the company is £150,000 in £1 shares.

THE GALLYMONT GOLD FIELDS (LIMITED).

This company has been formed to acquire an extensive and promising gold field of 51 amalgamated gold mining leases containing 264 acres 1 rood 1 perch, with battery and dam sites. The property was secured by the Anglo-Australian Exploration (Limited) on the advice of their engineer, Mr. M. Eissler, the well-known mining expert. During the last 12 months the property has been carefully explored and investigated by Mr. Eissler; and has also been examined and favourably reported upon by Mr. W. H. Skidmore, who has been connected with the district for many years as a mine owner and manager, Samuel Gifford, Esq., M.I.M.M., Inspecting Engineer to Messrs. John Taylor and Sons, and the Rev. J. Milne Curran, geologist and expert, and Lecturer to the Educational Department of the Government of New South Wales, who has had experience and knowledge of the property for the past 15 years. The property has also been recently inspected and favourably reported upon by Herr Bergrath Schmeisser, the eminent expert and geologist. There being about 8346 feet in length along the trend of the four reefs existing on the property, or equivalent to a distance of over a mile and a half, there is sufficient area for several companies to carry on mining operations on an extensive scale.—Mr. Eissler says there are four well-defined and parallel gold-bearing reefs traversing the property, and he is of opinion "that the reefs are of fissure origin, and that all the indications exist that the reefs will prove of a permanent character, and will carry their payable gold to a great depth." The capital of the company is £300,000, in £1 shares.

NEW KLEINFONTEIN.—The Anglo-French Exploration Company (Limited), as agents of the company, have received the following information from Johannesburg, being summary of operations for the months of March and April since temporary closing of the mill in February:—Result of final washup and treatment of tailings: From the mill, 347·40 ounces; cyanide treatment, 599·70 ounces; total, 947·10 ounces. As compared with February, 2308 ounces.—Development. Number of tons developed, 13,267 tons; as compared with February, 4200 tons; number of feet driven and sunk, 1136 feet; as compared with February, 304 feet; total ore reserves, 199,600 tons; as compared with February, 189,450 tons.

THE METAL MARKETS.

THE METAL MARKET, LONDON, JUNE 19.

Copper.

THE course of the speculative market was as follows:—On Monday great excitement prevailed, the rise of the previous Friday having made further progress on Saturday, when up to £49 15s. three months was paid, so that there were general anticipations of a new advance. The first business done on Monday morning was at £50 three months, and from that figure there was a rapid bound to £50 12s. 6d., or 28s. 9d. per ton over Friday's highest price. The volume of business was very large, amounting to about 2700 tons, a considerable portion of this consisting of covering by "bears." These high values induced realisations in consequence of which the value of spot and forward (the contango on the latter having vanished) fell back to £50. On Tuesday there was a further easing off to £49 15s. s.c., the mid-monthly statistics showing a slight increase in the visible supplies, and on Wednesday there were further heavy realisations resulting in a fall to £48 12s. 6d. Thursday's market, however, brought a brisk rally to £49 17s. 6d. for s.c. and three months, and to-day business was done at up to £50 5s. three months, and down to £50 16s. 3d. s.c., the market closing quiet but firm at £50 s.c. and £50 1s. 3d. three months sellers. The American market still continues very firm, and holders of copper have no occasion to make concessions.

Tin.

This market showed unwonted life on Monday, there being active speculative support of the article, resulting in a turnover of about 500 tons at advancing prices, s.c. changing hands at £61 5s to £61 13s. 6d., and three months at £62 to £62 7s. 6d. From this point the tendency was towards reaction, and spot Straits found sellers on Tuesday down to £61 6s., and on Wednesday down to £60 15s., three months' going back to £61 5s. Fresh purchasing on Thursday brought a renewal of the firmer tendency, and the value quickly recovered to £61 2s. 6d. s.c. and £61 13s. 9d. three months. Friday's market was firm and fairly active, with business at £61 7s. 6d. s.c. and £61 17s. 6d. to £61 18s. 9d. three months, the close being steady at £61 6s. 3d. to £61 7s. 6d. s.c., and £61 16s. 3d. to £61 17s. 6d. three months Straits. The Dutch market remained steady during the first three days at fl. 3 1/16 s.c. and fl. 36⅜ three months. Billiton declined to fl. 36¼ and fl. 36⅛ respectively on Thursday, but closed firm again this morning at fl. 36⅝ s.c. and fl. 36⅞ three months Billiton s.c., with cash Banca at fl. 37⅛.

Pig Iron.

Scotch shipments last week amounted to about 4000 tons, or (say) 2300 tons less than in the same week of last year. Business in the Glasgow market has been done successively at 46s. 5d. s.c., 46s. 9½d., 46s. 5½d., 46s. 6½d., 46s. 4½d., 46s. 1½d., closing at 46s. 1½d. buyers s.c., with a month at 46s. 3½d., and hematite and Middlesbrough respectively at 47s. and 37s.

Lead

Is quiet but rather firmer, and closes at £10 17s. 6d. to £10 18s. 9d. soft foreign and £11 5s. English.

Spelter.

The tendency has again been towards higher values, the quantities offering being quite unimportant. We close firm at £18 5s. to £18 7s. 6d. ordinaries and £18s. 7s. 6d. to £18 12s. 6d. specials.

Antimony

Is quiet and without special feature at £30 to £30 10s.

Quicksilver

Remains inanimate at £5 10s. firsts and £6 7s. 6d. seconds.

The following are to-night's (June 19) prices of metals:—

	£ s. d.	£ s. d.
Copper.		
Tough cake and ingot	53 10 0	53 15 0
Best selected	53 15 0	54 0 0
Electrolytic Copper	52 10 0	55 10 0
Sheets and sheathing	—	60 0 0
Flat bottoms	—	63 0 0
Chili bars	spot, & 3 months respectively 50 0 0	50 1 3
Good merchantable,		
Copper tubes, seamless	—	0 0 6
Alloys.		
BRASS: Wire	—	0 0 6
" Tubes (solid drawn)	—	0 0 7
" Sheets	—	0 0 6¼
PHOSPHOR BRONZE: Alloys II.	—	
" III. or Cog Wheel Brand	—	81 0 0
" VII.	—	83 0 0
" XI.	—	76 0 0
" Vulcan brand A1	—	72 0 0
DURO METAL	—	72 0 0
BULL'S METAL	—	65 0 0
Ferrobronze (Vivian's).		
Ingots ...per lb.	0 0 6	—
Ordinary sheets, plates, bolts and bars	0 0 7	—
Screw bolts and nuts	0 0 8¼	—
Pump rods, plain	0 0 7½	—
" finished	0 0 10½	—
DELTA METAL: No. 4 (per ton)	—	—
" Sheets and plates (per lb.)	—	—
" Bars, round, square, flat (per lb.)	—	—
" hexagon (per lb.)	—	78 0 0
Tin.		
English, ingots, f.o.b.	—	65 10 0
" bars	—	66 10 0
" refined	—	67 10 0
Straits, spot and 3 months respectively	61 7 6	61 17 6
Australian spot, and three months respectively	62 12 6	63 2 6
Banca " (in Holland)	62 15 0	62 17 6
TIN PLATES: Charcoal, best quality per box	0 14 3	0 17 0
" " ordinary	0 10 9	0 13 6
" Coke, best quality	0 9 6	0 9 9
" ordinary	0 9 3	0 9 8

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	—	2 5 1½
" Scotch pig, No. 1 Gartsherrie	—	2 10 0
" " Coltness	—	2 12 6
" " Clyde	—	2 9 6
" " Govan	—	2 7 6
Bars, Welsh, f.o.b. Wales	—	5 5 0
Plates "	—	6 7 6
Bars, Staffordshire, at works	—	5 7 6
Sheets "	—	6 7 6
Plates "	—	6 7 6
Hoops "	—	5 15 0
Ship plates, Middlesborough	—	5 0 0
STEEL: English spring	—	10 0 0
" cast	—	42 0 0
" Rails at works, according to section	—	5 0 0
Lead.		
Spanish or soft foreign 10 17		1 18 9
English pig, common	—	11 5 0
" L.B.	—	11 12 6
" sheet and bar lead	—	11 2 6
" pipe	—	12 12 6
" red	—	14 5 0
" white	—	17 10 0
" patent shot	—	14 15 0
Spelter.		
Silesian ordinary brands 18 5 0		18 7 6
" special brands 18 7 6		18 12 6
English Swansea 18 17 6		19 2 6
Sheet Zinc 21 10 0		22 0 0
Antimony.		
Antimony 30 0 0		30 10 0
Quicksilver.		
Flasks, 75 lbs. warrants	6 7 6	6 10 0
Ore, c.i.f., U.K. ports	per unit.	
Manganese.		
1st quality, 50 per cent. and upwards	0 0 11	0 1 1
2nd " 47 per cent. to 50 per cent.	0 0 10	0 1 0
3rd " 40 " 47 per cent.	0 0 9	0 0 11
Aluminium.		
98–99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots and upwards)	Per lb. —	Per lb. 0 1 4½
Nickel.		
98–99 per cent. guaranteed	0 1 1	0 1 3

DEATH OF A WELL-KNOWN MINE MANAGER.

On Wednesday, "Captain" Polglase, manager for the Nentforce Quarry Company, died at his residence, Hundy House, Alston, after two days' illness. The deceased was well known in mining circles, having held several important appointments as manager of mines. Born at Gremoc, in Cornwall, in 1824, he spent his early years in that county, and afterwards emigrated to America, where he was connected with the Bruce Mines. Subsequently, he was manager at Great Laxey, Isle of Man, and at Caldbeck Fells, Cumberland. About 14 or 15 years ago he took over the management of the Green Hurth Mines, in the Alston district, where he continued until the formation of the Nentforce and Whinstone Quarry Company, at Alston and Coanwood. He then removed into the town, and has carried on the last-mentioned works until his death. The Captain was held in high respect, his upright character and genial disposition securing for him a large circle of friends. He was a Wesleyan, and in politics a staunch Liberal. The cause of his death was inflammation of the lungs, following influenza. He leaves a widow and three daughters.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D* Diamonds; *G*, Gold; *I*, Iron; *L* Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; ‡ in the "Head Office" column of African Mines signifies that the address given is not that of the head office but of a sub, or transfer office; and †, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

*** The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

AFRICAN MINES.

Name.	Closing Price, June 19, 1896	Closing Price June 12, 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£		£ s. d.			
Abbott's Con. Reefs	6/ 7/	6/ 7/	1 0	—	1 0 0	—	De Kaap	Broad Street Avenue
Aldler Consolidatd	1⅜ 1⅛	1⅜ 1⅛	1 0	—	1 0 0	250,000	—	1, Moorgate place.
African Estates......	2 11/16 2 13/16	2¾ 2⅞	1 0	2/& rtsOc.16 95	1 0 0	438,000	,,	3, Copthall-buildings
,, Gold Recvry	1⅛ 1¾	1⅛ 1¾	1 0	rts Oct 30 '95	1 0 0	175,000	—	23, College Hill,
Africana	11/16 13/16	11/16 13/16	1 0	—	1 0 0	1,075,000	—	34, Clement's lane
Afrikander	1 9/16 1 11/16	1½ 1⅜	1 0	rts May 24 '95	1 0 0	40,000	Transvaal.	23, College Hill
Alexandra Estate *G*	13/16 15/16	1 1⅛	1 0	—	1 0 0	225,000	Rand	16, George street
Anglo-French Exp.	5⅞ 6	6 6½	5 0	7/ May 29 '96	5 0 0	30,300	S. Africa	3, Princes street
,, Matabeleland	3¼ 3¾	3¾ 4¼	1 0	—	1 0 0	39,750	Matabld.	Winchester House.
Appantoo ...... *G*	—	—	1 0	—	1 0 0	77,885	West Cost	Dashwood House.
Aurora ...... *G*	1⅜ 1⅝	1⅛ 1⅝	1 1	5% Mar.,'93	1 0 0	65,000	Rand	8, Old Jewry.‡
,, West United	1⅜ 1⅝	1⅛ 1¾	1 0	—	1 0 0	100,000		7, Lothbury
Austral-African ...	1 11/16 1 13/16	1 13/16 1 15/16	1 0	3/-Dec. 16 '95	1 0 0	250,000	—	Token.Ho., CpthllAv
Balkis Eersteling *G*	3/ 3/6	3/6 4/	10/	—	0 10 0	520,000	Transvaal	85, Gracechurch-st,
,, Land	7/3 7/9	7/6 8/	10/	1/ Feb, 13, '96	0 0 0	520,000	,,	,,
Bantjes Consol ... *G*	4 3/16 4 5/16	4⅜ 4½	1 0	rts Sep 24 '95	1 0 0	83,000	,,	15, Geo. st., Mn Ho.
Barnato Bank	2⅛ 2¼	2¼ 2⅜	1 0	—	1 0 0	2,425,000	—	7, Lothbury
,, Consol ...	3 1/16 3 3/16	3¼ 3⅜	1 0	—	1 0 0	1,000,000	—	,,
Barrett............ *G*	16/6 17/6	17/ 18/	10/	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	1 11/16 1 13/16	1 13/16 1 15/16	1 0	rts Jy 24 '95	1 0 0	400,000	Bechuana.	19, St.Swithin's-lane
,, Trad'g Assoc.	1¼ 1½	1¼ 1½	1 0	5 pc Jan 16, 96	1 0 0	100,000	,,	72, Basinghall street
Big Golden Quarry	/6 1/	/6 1/	5/-	—	0 5 0	483,226	Kaap Rivr	Warnford Court,
Block "B" Lang.	1 15/16 2 1/16	2 3/16 2 5/16	1 0	—	1 0 0	535,000	Rand	5, Princes-st . E.C.‡
Bonanza	2⅞ 3	3 3⅛	1 0	—	1 0 0	200,000	Turffont'n	120, Bishopsgate-st.
Brit. S. A. Char. ..	3⅛ 3⅜	4 4⅛	1 0	rts Jy 26 '95	1 0 0	1,999,760	S. Africa	15, St. Swithin's-lane
Buffelsdoorn...... *G*	2¾ 3	2⅞ 3⅛	1	16/-Nv. 28 '95	1 0 0	250,000	Potchefstr	7, Lothbury.
,, Central	⅝ ¾	⅝ ¾	1 0	—	1 0 0	—	—	8, Old Jewry
,, Consolidated	13/16 15/16	⅞ 1	1 0	—	1 0 0	225,000	—	Warnford Court
Cape Asbestos	¾ 1	¾ 1	1 0	—	1 0 0	50,211	Orange Rv	19, St. Swithin's-lane
,, Copper ......*C*	2⅝ 2⅞ xd	2⅝ 2⅞ xd	2 0	2/ June 12, '96	2 0 0	300,000	Cape Col.	9, Queen-street-place,
,, 6% Pref. ..	2⅝ 2⅞ xd	2⅝ 2⅞ xd	2 0	2/ June 12, '96	2 0 0	45,000	,,	,,
Cassel Coal............	1⅝ 1¾	1 11/16 1 13/16	1 0	1/6 Apr, 29 '96	1 0 0	75,000	Johanbrg.	99, Cannon-street.
Cen. de Kaap	/9 1/3	/9 1/3	5/-	—	0 2 6	—	De Kaap	Palmerston Bldgs
,, Roodp't Deep	2 3/16 2 5/16	2⅝ 2⅜	1 0	—	1 0 0	220,000	—	120, Bishopsgate st.
Champ d'Or...... *G*	2¼ 2⅛	2¾ 2¾	1 0	3/2 Feb. 27 96	1 0 0	116,016	Rand	8, Old Jewry, E.C.
Charterland G.F ...	¾ ⅞	¾ 1	1 0	—	1 0 0	150,000	—	19, S. Swithin's lane
Chimes West	1½ 2⅛	2 2¼	1 0	—	1 0 0	150,000	—	Winchester Ho.
City and Sub.Nw*G*	4⅜ 4⅞	4⅞ 5⅛	4 0	10/- June'95	4 0 0	340,000	Rand	Gresham Ho.
Con. Bultfontein *D*	33/6 34/6	33/ 34/	1 0	9d,Jan. 18 '96	1 0 0	721,500	Griqualnd	62, Lombard-st
Con. Deep Levels*G*	5½ 6	5½ 6	1 0	4/- Jy 11 '95	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A.	13 13¼	13⅜ 13⅝	1 0	10/ May 14 '96	1 0 0	1,250,000	S. Africa	8, Old Jewry,
Do. 6% Pref.	24/6 25/6	25/ 25/6	1 0	7 1-5d Dc30'95	1 0 0	1,243,999	,,	,,
Do. 5½% Deben...	110½ 111½	109½ 110½	5 0	5½ Jan. 2 '96	5 0 0	600,000	,,	,,
Crown Deep ......*G*	11⅛ 12⅛	11½ 12½	1 0	—	1 0 0	250,000	Rand	120, Bishopsgate-st.
,, Reef ......*G*	11⅝ 11⅞	11¾ 12	1 0	10/-Apr. 29 '96	1 0 0	120,000	,,	,,
DeBeers Consol. *D*	30⅝ 30⅞	30½ 31	5 0	15/- Jan. 16 '96	5 0 0	789,791	Kimberl'y	62, Lombard-street.
Do. 5% 1st Deb....	109 110	108½ 109½	—	5% Jan. 2 '96	—	£3,500000	,,	,,
Do. 5½% Bul. Ob	105 107	104 106	—	5½% Oct, '95	—	720,000	,,	,,
Doornkop	5/6 6/6	4/ 5/	1 0	—	1 0 0	250,000	Doornkop	Warnford Court
Driefontein	3¼ 3½	3½ 3¾	1 0	—	1 0 0	175,000	—	Winchester Ho,
Durban Roodept. *G*	7 7¼	7 7½	1 0	3/- Dec, 16 '95	1 0 0	£125,000	Rand	28, Leadenhall-bldg.
,, Deep.........	4¼ 4½	4½ 4½	—	—	—	—		
Eastleigh ....*G*	1 3/16 1 5/16	1 3/16 1 7/16	1 0	rts May 14 '96	1 0 0	240,000	Klerksdrp	52, Leadenhall Street
East Orion........ ..	3/16 5/16	⅛ ¼	1 0	—	1 0 0	275,000	Rand	8, Old Jewry.
,, Rand......... *G*	8⅝ 8 11/16	8⅜ 8¾	1 0	—	1 0 0	570,000	,,	170, Winchester-ho.
Exploration	4¼ 4½	4⅛ 4⅜	1 0	5/- Mar. 12 '96	1 0 0	148,000	S. Africa	30, S. Swithin's-ln.‡
Exploring L & M...	1 7/16 1 9/16	1⅝ 1¾	1 0	2/ Dec. 16, '95	1 0 0	216,215	,,	19, ,,
Ferreira ....*G*	20¾ 21¼	21 21⅛	1 0	13/ Mar. 12 '96	1 0 0	45,000	Rand	120, Bishopsgt st. Wn
French Rand	3⅛ 3¼	3⅜ 3½	1 0	—	1 0 0	480,000	Rand.........	28, Austin Friars.
Geldenhuis Deep*G*	6⅜ 6⅝	6⅛ 7	1 0	—	1 0 0	265,000	Transvaal .	30, St. Swithin's-lane.
Geldenhuis Est. *G*	3⅞ 4⅛	4¼ 4½	1 0	6/- Jy 26 '95	1 0 0	187,500	Rand	120, Bishopsgt st, Wn‡
,, Main Reef	⅞ 1	1 1/16 1 3/16	1 0	2/ Feb. 13 96	1 0 0	150,000	,,	Warnford Court, E.C
George Goch .. *G*	2½ 2⅝	2⅜ 2⅝	1 0	—	1 0 0	100,000	,,	Johannesburg.
Ginsberg New ... *G*	1 15/16 2 1/16	2 1/16 2 3/16	1 0	—	1 0 0	130,000	Drietfon .	Warnford Court, E.C‡
Glencairn ....*G*	3⅜ 3¾	3 13/16 3 15/16	1 0	2/6 Feb. 13 '96	1 0 0	200,000	Rand	2, Drapers-gardens.
Golden Dove	1⅞ 2⅛	1⅞ 2⅛	1 0	—	1 0 0	60,000	Natal	65, Chancery Lane.
Gld. Fls. Deep...*G*	11⅛ 11⅜	11½ 11¾	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G.F. of Lydenb'rg	3 11/16 3 13/16	3¾ 3⅞	1 0	—	—	—	Lydenb'rg	7, Lothbury.
G. F. of Mashonld.	5/16 7/16	5/16 7/16	1 0	—	1 0 0	200,000	Mashonld.	19, St. Swithin's-ln.
G.F. of T.de Fuego	7/ 7/6	6/- 6/6	—	—	—	—		
Graskop .... *G*	6/3 6/9	6/3 6/9	5/-	2½% Mar, '92.	0 5 0	400,000	Lydenburg	2, Tokenhouse Bldgs
Gt. Estrn. Colliery	1 3/16 1 5/16	1⅛ 1¼	1 0	—	1 0 0	376,666	Grootolei	8, Finch Lane
Griqualand W....*D*	8¼ 8½	8¼ 8⅛	10 0	4/ Jan 16, '96	10 0 0	105,700	Transvaal .	62, Lombard-street
Heidelbg. Est. Ex.	¾ ⅞	13/16 15/16	1 0	—	—	—	Heildelbg.	
Henderson's Trans	2¾ 2⅞	2⅞ 3	1 0	—	1 0 0	250,000	Zoutpanbg	85, Gracechurch st.
Henry Nourse ...*G*	6¾ 7	7⅛ 7⅜	1 0	—	1 0 0	100,000	De Kaap ...	Warnford-court.
Hetty	⅝ ¾	⅝ ¾	1 0	—	1 0 0	110,000	Middlevel.	55, Bishopsgate st Wn
Joe's Reef ....*G*	3/16 5/16	3/16 5/16	1 0	—	1 0 0	57,404	,,	21, Mincing Lane.
Johannesbrg Invst	3⅞ 4	4⅛ 4¼	1 0	20% Oct. '95	1 0 0	650,000	—	7, Lothbury.
,, Pioneer	9¼ 9¾	9⅛ 10	1 0	12½% Nov.,'93	1 0 0	21,000	Rand.........	Johannesburg.
Jubilee ....*G*	9¼ 9¾	9¼ 9¾	1 0	4/ Apr. 29 '96	1 0 0	30,000	,,	8, Old Jewry.†
Jumpers ....*G*	7¼ 7⅛	7¼ 7½	1 0	6/- Mar. 27 '96	1 0 0	100,000	,,	120, Bishopsgt st, Wn‡
,, Deep......	3⅜ 3⅝	3⅜ 3⅝	1 0	—	1 0 0	300,000	,,	30, S. Swithin's lane.
Kimberley .. ..*D*	⅜ ⅛ pm	⅜ ⅛ pm	1 0	2/ Jan 16. '95	0 10 0	98,672	Kimberley	19, Finsbury circus.
,, Rdpt....	2½ 2⅞	2¼ 3	1 0	—	1 0 0	125,000	,,	2, Drapers-gardens.
Klerksdorp	16/6 17/	16/9 17/3	10/-	—	0 10 0	400,000	Klerksdorp	110, Cannon St.
Knight's Deep	2⅜ 2⅞	2⅝ 2⅞	1 0	—	1 0 0	295,194	Rand..... ...	8, Old Jewry
Koffyfontein......*D*	1	1 1/16 1 3/16	1 0	x.rts.Jun10'96	1 0 0	125,000	Jacobsdaal	6, Gt. St. Helen's.
Lancaster	2⅛ 2⅜	2⅝ 2¾	1 0	—	1 0 0	226,500	Luip. Vlei	120, Bishopsgt st. Wn
Langlaagte Est. *G*	5¾ 6	5⅞ 6	1 0	5/ Feb 13 '96	1 0 0	470,000	Rand.........	59, Holborn Viaduct
,, Royal	2¼ 2⅜	2⅜ 2⅝	1 0	rts. Mar. 6 '95	1 0 0	100,000	,,	2, Drapers-gardens.
,, Star...	1⅞ 2	1⅞ 2⅛	1 0	—	1 0 0	170,000	,,	
Lisbon-Berlyn .. *G*	7/9 8/3	8/3 8/9	2/6	—	0 6	889,233	Lydenburg	Suffolk House.
Lon.Paris Fin & M.	1 3/16 1 5/16	1 7/16 1 9/16	1 0	—	1 0 0	500,000	—	53, Old Broad Street.
London & S. A. Ex.	14⅛ 15	14 14½	10/	4/- Mar. 12 '96	0 10 0	100,000	S. Africa ...	19, Finsbury-circus.
Luipaards Vlei Est.	2⅛ 2¼	2 1/16 2 5/16	1 0	6% Mar, '90	1 0 0	319,003	Rand..... ...	Warnford-court.‡
Lydenburg Estate.	1 13/16 1 15/16	1 13/16 1 15/16	1 0	—	1 0 0	190,000	Lydenburg	85, Gracech. Street
,, Ld & Expl	⅛ ¾	⅛ ¾	1 0	—	1 0 0	200,000	,,	120, Bishopsgte St.
,, M'g. Est.	7⅝ 7¾	6¾ 7	1 0	—	1 0 0	300,000	,,	,,
Main Reef (New)*G*	1 11/16 1 13/16	1¾ 1⅞	1 0	—	1 0 0	111,500	Rand.........	15, George St., MnH
Maimani Gold Syn	3/6 4/6	3/6 4/6	2/6	—	0 2 6	200,000	Transvaal	Throgmorton House,
Marie Louise.........	2⅞ 3⅛	2⅞ 3⅛	1 0	—	1 0 0	60,000	Rand.........	15, George St , Mn H
Marievale Nigel ...	1 1¼	1 1¼	1 0	—	1 0 0	250,000	,,	,,
Mashon. Agency...	2⅜ 2⅛	2 11/16 2 13/16	1 0	2/ Ap. 16 '96	1 0 0	100,000	Mashonald	8, Old Jewry, E.C.
,, Central...	⅞ 1	1 1⅛	1 0	—	1 0 0	180,000	,,	,,
Matabelel'd G. R'f	4⅛ 4¾	4⅞ 5	1 0	—	1 0 0	110,000	Matabelel'd	3, Copthall-buildings.
May Con. (New) *G*	3¼ 3¾	3⅜ 3¾	1 0	2/- Mar. 12 96	1 0 0	236,500	Rand...... ...	4, Lothbury.‡
Meyer & Charl....*G*	6⅜ 6⅝	6½ 6¾	1 0	5/ Feb, 13 96	1 0 0	75,020	,,	1, Crosby Square.‡
Minerva	1¼ 1⅜	1¼ 1⅜	1 0	—	1 0 0	150,000	,,	Winchester House.
Mines Selection ...	¾ 1	¾ 1	1 0	—	1 0 0	100,000	—	33, Br'd St. Avenue.
Modderfontein.. *G*	7⅛ 7¾	7⅞ 8	1 0	—	1 0 0	200,000	Rand.........	13, George Street
,, "B" Extensn.	2⅝ 2¼	2¼ 2⅜	—	—	—	—	—	28, Austin Friars
Molyneux Consoll.	1⅞ 2⅛	1⅞ 2⅛	1 0	—	1 0 0	220,000	Modderftn	120, Bishopsgate st
Moodies ....*G*	1 3/16 1 5/16	1 5/16 1 7/16	1 0	-/4 May '90	1 0 0	240,000	,,	Gresham House.‡
Mozambique.........	1⅞ 2	1¾ 1⅞	1 0	—	1 0 0	400,000	S.E. Africa	13, Austin Friars.
Namaqua ....*C*	1⅞ 2⅛	1⅝ 1¾	2 0	2/6 July '91	2 0 0	94,331	Namaquald	34, Leadenhall-blds.
New African	3¾ 4	4¼ 4⅛	1 0	20/ Dec. 30 '95	1 0 0	190,000	—	83, Hatton Garden.
,, Chimes...... *G*	1 7/16 1 9/16	1⅛ 1¾	1 0	1/- Mar. 27 '96	1 0 0	100,000	Rand.........	8, Old Jewry, E.C
,, Comet	3¼ 3⅛	3⅝ 3¾	1 0	—	1 0 0	175,000	Heidelburg	Winchester-house.
,, Crœsus...... *G*	1⅝ 1¾	1 13/16 1 15/16	1 0	rts Apr 17 '95	1 0 0	255,000	Langlaagte	120, Bishopsgt.st, Wn
,, Gordon......*D*	4/ 5/	5/6 6/6	1 0	6% Dec. '89	1 0 0	404,344	Griqualand	110, Cannon-street.
,, Heriot ......*G*	9⅜ 9⅞	9¾ 10	1 0	4/ Apr. 29, '96	1 0 0	88,750	Rand.........	96, Gresham Ho EC
,, Jagersf. ...*D*	11⅞ 12⅛	11 15/16 12 1/16	5 0	10/ Apr. 15 '96	5 0 0	200,000	Transvaal .	5, Copthall-buildings
,, Kleinfontein *G*	3¾ 4	3⅞ 4⅛	1 0	12½pc Mar,'95	1 0 0	82,500	Rand.........	Winchester House
,, Midas	2⅞ 3⅛	3¼ 3⅛	1 0	rts Jan, 16, '96	1 0 0	150,000	Mid'le Vlei	120, Bishopsgt-st, W
,, Primrose ...*G*	5 9/16 5 11/16	5⅝ 5⅞	1 0	5/ Feb. 13, '96	1 0 0	278,750	Rand.........	2, Draper's-gardens.
,, Rietfontein *G*	3½ 3¾	3½ 4⅛	1 0	—	1 0 0	160,000	,,	Warnford-ct., E.C.
,, S.Augustine *D*	9/6 1 /6	11/3 11/9	1 0	—	0 19 6	299,137	Griqu'ld W	30-1, St. Swithin's-l.
,, Spes Bona...*G*	1 13/16 1 15/16	1¾ 1⅞	1 0	—	1 0 0	113,701	Rand.........	24, N. John-st., L'pl
,, Steyn Estate	1 15/16 2 1/16	1¾ 1⅞	1 0	—	1 0 0	125,000	Heidelber	19 Bury Street EC

AFRICAN MINES—(*Continued*).

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£					
Nigel .... *G*	3¾ 4	3¾ 4	1 0	rts Aug 10 '95	1 0 0	160,000	Rand.........	96, Gresham Ho., EC
,, Deep ......*G*	2 2⅛	2 1/16 2 3/16	1 0	—	1 0 0	195,000	Heidelberg	8 Old Jewry.
North Randfontein	2⅛ 2⅜	2¼ 2⅛	1 0	—	1 0 0	235,000	—	8, Princes street
Nourse Deep.........	6½ 7	6⅛ 7	1 0	—	1 0 0	375,000	Rand.........	120, Bishopgt.-st., Wn‡
Oceana	1 11/16 1 13/16	1 13/16 1 15/16	1 0	2/-Nov. 28 '95	1 0 0	357,400	Wtrbg Lyn	13, Austin Friars.
,, Develpmnt	⅛ ¾	½ ¾	1 0	—	1 0 0	50,000	Heidebrg.	,,
,, Minerals ...	⅞ 1	13/16 15/16	1 0	—	1 0 0	5.0,000	,,	,,
Orange F.S.E. ...*D*	3¼ 3¾	3¼ 3¾	1 0	2/6 Apr.,29, 96	1 0 0	284,000	OrangeF.S.	10, Moorgate-street.
Orion (New)..... *G*	1 9/16 1 11/16	1 15/16 2 1/16	1 0	10% Aug, '95	1 0 0	30,000	Rand.........	8, Old Jewry.
Paarl Central ... *G*	1⅜ 1⅛	1 7/16 1 9/16	1 0	—	1 0 0	138,750	Transvaal .	120, Bishopsgt st, Wn.
Pardy's Mozambq.	1⅛ 1½	1¼ 1½	10/	rts Mar 12 '96	0 10 0	60,000	S.E. Africa	Broad St. Avenue.
Piggs Peak ...... *G*	¾ ⅞	13/16 15/16	1 0	—	0 17 0	200,000	Swazieland.	6, Queen-street-place
Porges Randfontn.	1⅜ 1⅛	1⅜ 1⅛	1 0	2/ Feb. 13 '96	0 0	437,500	Rand.........	1, Bank Buildings
Potchefstroom... *G*	11/16 13/16	¾ ⅞	1 0	—	1 0 0	389,750	Potchefst...	19, Bury-st., E.C.
Princess Estate *G*	3⅛ 3¼	3 3/16 3 5/16	1 0	—	1 0 0	125,000	Rand.........	33, Cornhill. E.C.
Rand Central Ore	2 2¼	2 2¼	1 0	25 p c Aug. 95	1 0 0	115,000	—	8, Princes-street, E.C.
Randfontein ......*G*	3⅛ 3¼ xr	2⅜ 3½	1 0	xr June 12, 96	1 0 0	2,000,000	Rand.........	1, Bank Buildings
Rand Mines ...... *G*	32⅛ 33	33⅛ 33⅜	1 0	—	1 0 0	332,708	,,	120, Bishopsgt st. Wn‡
Rand-Rhodesia Ex	1 1/16 1 3/16	1⅛ 1⅜	1 0	10 p.c. Oct. '95	1 0 0	25,000	R&Rhodesa	123, ,,
Rhodesia Ex & Dv.	7 7½	7¼ 7¾	1 0	—	1 0 0	50,000	Mt &Mash'l	8, Old Jewry.
Robinson(SA)Bank	6 7	6 7	4 0	4/ Apl. 15, 96	4 0 0	750,000	—	8, Prince's-street
,, Deep......	9 9½	9¼ 9¾	1 0	—	1 0 0	500,000	M'nR'fR'nd	120, Bishopsgate st.
,, Diamond	1⅝ 1⅞	1⅞ 2⅛	1 0	—	1 0 0	350,000	Kaal Valley	8, Prince's street
,, Gold......	9⅜ 9⅝	9⅛ 9¾	5 0	8/ Feb 13 '96	5 0 0	550,000	M. Rf.'rand	28, Austin Friars E.C
,, Randftn.	1¼ 1½	1 7/16 1 9/16	1 0	—	1 0 0	617,000	Rand.........	8, Prince's-street.
Roodepoort Deep	3 3¼	3 3/16 3 5/16	1 0	—	1 0 0	170,000	,,	8, Old Jewry, E.C.
Roodepoort Un. *G*	5⅜ 5⅞	5 7/16 6⅛	1 0	5/ Feb 13 '96	1 0 0	130,000	,,	Warnford-court,‡
Rose Deep............	5⅛ 6	5¾ 6⅛	1 0	—	1 0 0	300,000	M. Rf.'rand	30-31, S.Swith's. lane‡
Rothery Block......	8/ 10/	8/ 10/	1 0	—	—	—	—	55, Bishopsgate st.
St. Angelo	5⅜ 5⅝	5⅝ 5⅞	1 0	—	1 0 0	175,000	—	Winchester House.
St. Helen's Devel.	2¾ 3	3⅛ 3⅜	1 0	—	1 0 0	47,950	S. Africa ...	13, S. Helen's Pl...
Salisbury New ...	4⅛ 4⅜	4⅜ 4⅛	1 0	—	1 0 0	99,000	Rand.........	96, Gresham Ho., EC
Sheba ....*G*	2 1/16 2 3/16	2⅝ 2¾	1 0	1/- Apr. 15 '96	1 0 0	850,000	Lydenburg	18, S. Helen's place.
Simmer & Jack...*G*	21 22	21¼ 22½	1 0	2/ Aug 14 95	1 0 0	250,000	Rand......	8, Old Jewry.
S.A GoldTrustNew	8⅛ 8¼	8¾ 9	1 0	15/ Feb 27 '96	1 0 0	250,000	S. Africa ...	,,
South West Rand	7/16 9/16	7/16 9/16	1 0	—	1 0 0	158,000	Rand.........	Winchester House.
Spitzkop (New) *G*	1 5/16 1 7/16	1⅜ 1⅛	1 0	—	1 0 0	99,070	Lydenburg	15, Bishopsgt-st, W...
Stanhope ....*G*	1 1/16 1 3/16	1 1/16 1 3/16	1 0	2/- Oct 20 '95	1 0 0	34,000	Rand... ...	96, Gresham Ho., E...
Sutherland R. ...*G*	4/ 5/	4/ 5/	1 0	—	1 0 0	220,000	Zoutpan'bg	Dashwood Ho.
Tati Concessions ...	2⅛ 2¼	2 5/16 2 7/16	1 0	rts Jy. 22 '95	1 0 0	392,000	—	Gresham House.
Trans. Coal Trust...	1⅝ 1⅞	1 11/16 1 13/16	1 0	1/-Apr. 29, 96	1 0 0	439,965	Rand... . . .	Broad-st. House, E.C
,, Consolidatd	2⅛ 2⅜	2¼ 2⅜	1 0	—	1 0 0	485,131	Transvaa	120, BishopsgtestWn.
,, Est. & Dev.	1⅛ 1¼	⅝ 1⅛	1 0	—	1 0 0	428,600	,,	10, New Broad-st. E.C.
,, Gen. Assoc.	3¼ 3⅛	3⅛ 3⅜	1 0	10/-Mar, 12 '96	1 0 0	185,000	,,	31, S Swithin's lane.
,, Gold Fields	⅜ 3⅞	2⅝ 3⅞	1 0	8/- Apr. 15 '96	1 0 0	135,000	S. A. R.......	120, Bishopsgt-st. Wn
,, Land.........	9/16 11/16	9/16 11/16	1 0	—	1 0 0	79,918	Transvaal .	35, Abchurch Lane.
Treasury............*G*	3⅜ 3⅜	3¼ 3¾	1 0	12½% Sep.'94	1 0 0	135,000	Rand.........	Warnford Court.
United Exploratn.	1¼ 1½	1⅛ 1⅜	1 0	—	1 0 0	250,000	—	120, Bishopsgte St.
Un. Ivy Reef......*G*	15/16 1 1/16	1 1⅛	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal .	110, Cannon-street.
U. Langlaagte(N)*G*	⅞ 1	1¼ 1⅛	1 0	—	1 0 0	146,000	Rand.........	85, Gresham Ho., E.C
,, Pioneer......	⅛ ¾	⅛ ¾	1 0	—	1 0 0	75,000	De Kaap ...	16, S.Helen's-pl., E.C‡
Van Ryn .... *G*	4⅞ 5⅛	5¼ 5⅛	1 0	4/- Jan. 16 '96	1 0 0	160,000	Rand.........	18, St. Swithin's-ln.
,, North ...	⅝ ⅞	⅞ 1⅛	1 0	—	1 0 0	116,091	—	,,
,, West.....	2⅞ 3⅛	3⅛ 3⅜	1 0	—	1 0 0	120,000	Rand	,,
Venterskroon	¾ 1	¾ 1	—	—	1 0 0	125,000	Rooderand	8, Old Jewry
Vesta	1 1¼	1 1¼	1 0	—	1 0 0	130,000	Rand	Winchester House
Village Main Reef	6½ 6¾	6⅝ 6⅞	1 0	—	1 0 0	177,000	,,	8, Old Jewry.
Vogelstruis Estate	4⅜ 4⅞	4⅜ 4⅞	1 0	—	1 0 0	200,000	,,	Winchester House.
,, Cons. Deep ...	2⅛ 2¾	2⅛ 2¾	1 0	—	1 0 0	327,750	,,	16, Geo. St. Mn. Ho.
Wassau ....*G*	¾ ⅞	¾ ⅞	1 0	—	1 0 0	100,000	Gold Coast	147, Cannon-street
Wemmer ....*G*	9⅜ 9⅝	9⅛ 9¼	1 0	10/ Apr. 29 96	1 0 0	55,000	Rand...... ..	19, Bury-street,‡†
Western Nigel......	11/16 13/16	11/16 13/16	1 0	—	1 0 0	207,000	Main Reef	Suffolk House.
West Rand.........*G*	2⅜ 2⅝	2 11/16 2 13/16	1 0	—	1 0 0	240,000	Rand...... .	13, Geo. St..Mans.Ho.
Willoughby's Con.	1¾ 1⅞	2 2⅛	1 0	—	1 0 0	700,000	Mashonald	3, Copthall-bldgs.
Witwatersrand *G*	7 3/16 7 5/16	7⅛ 7¼	1 0	—	1 0 0	250,000	Rand.........	19, Bury-st., E.C.
Wolhuter ....*G*	7¾ 8	7¾ 8	1 0	rts Apr 26 '94	1 0 0	130,000	,,	Warnford-court.†
Worcester ....*G*	4⅛ 4¼xd	4¼ 4⅛	1 0	3/- June 12 '96	1 0 0	90,727	Rand.........	8, Old Jewry.‡
Zambesia Explora.	2⅝ 2⅞	2¾ 3	1 0	—	1 0 0	65,000	Transvaal .	30-31, Clement's lane

BRITISH MINES.

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£		£ s. d.	£		
Basset	16 19	17/ 18/6	1 0	—	1 0 0	65,000	Cornwall	Redruth.
Blue Hills .....*CT*	1/ 2/	1/ 1/6	*	2/- May, '81	5 19 5	5,353	,,	Camborne.
Carn Brea .... *T*	6/ 7/	9/ 12/		2/6 Dec.,'93	22 8 5	6,000	,,	Carn Brea.
Devon Gawton *CA*	15/ 20/	⅞ 1	1 0	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
,, Gt Cons. *CA*	19/ 20/	15/16 1 1/16	5 0	1/6 May '95	2 0 0	10,240	Devon ...	,,
Dolcoath ....*T*	15/ 16/	14/6 15/	1 0	—	1 0 0	188,000	Cornwall	Camborne.
,, ...	5/ 6/	5/ 5/6	1 0	—	0 7 6	25,000	,,	,,
Drakewalls *CTM*	/3 /6	/3 /6	5/	—	0 2 0	61,856	,,	Dashwood House.
East Pool ......*AT*	2¼ 2⅜	2⅜ 2⅜	*	1/6 Sept, '94	0 9 9	8,400	Cornwall	Illogan.
Great Laxey......*L*	1⅜ 1⅝	1⅛ 2	4 0	5/- Apr., '92	4 0 0	15,000	I. of Man	Gresham House.
Isle of Man ......*L*	5¾ 6¼	5⅛ 6	5 0	3/- June '96	5 0 0	14,000	I. of Man	Chester.
Killifreth ....*T*	6/6 7/6	10/ 11/6	*	11/6 Nov.,'94	5 15 6	6,000	Cornwall	Truro.
Leadhills ....*L*	1 1⅛	1 1⅛	6 0	1/- Oct. 16 '95	6 0 0	20,000	Lanarksh.	30, Finsbury-circus.
Levant ....*CT*	3¾ 4	3¾ 4	*	4/- Nov., '94	11 9 6	2,500	Cornwall	Penzance.
Polberro ....*T*	⅜ ⅛	4/ 5/	*	—	2 1 5	18,000	S.Agnes,Cl.	37, Walbrook.
So. Condurrow *TC*	1/ 2/	⅛ ¼	*	3/6 Apr. '93	7 17 8	6,123	Cornwall	20, Great St. Helens
,, Crofty *TA*	1/ 2/	⅛ ¼	*	—	17 10 6	5,769	,,	Pool, Cornwall.
Tincroft ....*T*	7/ 9/	9/ 10/	*	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale ....*L*	8/9	8/9	4 0	1/3 Oct. '90	1 10 0	60,000	Durham...	3, Lombard-court.
West Kitty ......*T*	1¾ 2	1⅞ 2	*	2/- Dec, '94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheal Agar ..*TA*	——	⅛ ¼	*	2/6 Aug. '88	23 15 2	6,000	,,	Redruth.
,, Friendly..*T*	1/ 1/6	1/ 1/6	*	—	0 12 9	10,000	,,	2, Copthall Bldgs.E.C
,, [illegible]nville *T*	5⅛ 6	5½ 6	*	3/- Nov 28 '95	18 2 0	6,000	,,	7, Union-court, E.C.
,, [illegible]tty......*T*	1/6 2/	2/6 3/	*	3/- Mar. '88	4 5 6	8,590	,,	Truro.
,, [illegible]etal&F. *T*	3/ 4/	3/6 4/	*	—	0 3 0	60,000	,,	14 Broad-street Av.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Balaghat Mysore *G*	3/3 3/9	3/6 4/	1 0	—	1 0 0	160,000	India	6-7, Queen-street-pl.
Burma Ruby......*R*	¾ ⅞	¾ ⅞	1 0	—	0 18 0	298,370	Burmah...	Suffolk House E C.
ChampionReef...*G*	7⅛ 7¾	7¾ 8	1 0	4/- Apr. 29 '96	1 0 0	211,645	India	6-7, Queen-street-pl.
Colar Central ...*G*	1/- 1/6	1/ 1/6	1 0	—	1 0 0	200,000	,,	Dashwood Ho., E.C.
Coromandel...... *G*	1 13/16 2 1/16	2 2⅛	1 0	—	1 0 0	120,000	,,	6-7, Queen-st.-place
GoldFldsMysore *G*	26/ 27/	26/ 27/	1 0	2/- Feb '96	1 0 0	220,000	,,	6-7, Queen-street pl.
Kadur Mysore......	7/ 7/6	7/ 7/6	5/	—	0 5 0	400,000	,,	Copthall House, E.C
Kempinkote GdFd	1/3 1/9	1/6 2/	5/	—	0 4 0	575,210	India	6-7, Queen-st., [illegible]
Mysore .... *G*	7⅜ 7¾	7 13/16 7 15/16	1 0	4/6 Mar, 12 '96	1 0 0	248,354	,,	6-7, Queen-[illegible]
My. Harnhalli ...*G*	-/9 1/3	/9 1/3	1 0	—	0 12 6	100,007	,,	2, East India [illegible]
,, Reefs ...*G*	8/ 9/	8/ 9/	1 0	—	0 19 6	160,000	,,	6-7, Queen[illegible]
,, West(N)*G*	1 1⅛	1 1⅛	1 0	rts. Jan. 16 '95	0 19 6	127,402	,,	2, Gt. Winchester St
,, Wynaad *G*	15/16 1 1/16	15/16 1 1/16	1 0	rts. Jan. 16 '96	0 19 6	125,000	,,	,,
Nine Reefs ......*G*	1/ 11/	8/ 9/	10/	—	0 3 6	250,000	,,	6-7, Queen[illegible]
Nundydroog.......*G*	3 7/16 3 9/16	3⅛ 3⅝	1 0	2/- Mar 12 '96	1 0 0	200,000	,,	,,
Ooregum (Dl.O.)*G*	3⅜ 3⅝	3⅛ 3⅜	1 0	2/6 Apr. 15 '96	1 0 0	145,000	,,	,,
,, (10% Pref.).	4 4¼	4⅛ 4⅜	1 0	2/6 Apr. 15 '96	1 0 0	107,011	,,	,,
,, (10% Pref.).	3⅝ 3⅞	3⅝ 3⅞	1 0	2/6 Apr. 15 '96	0 5 0	12,989	,,	,,
Pahang Kabang *T*	1/16 ⅛	1/16 3/16	1 0	—	1 0 0	200,000	Malay Pn.	4a, Jeffrey's sq. E.C.
,, Corp........	⅛ ⅛	⅛ ⅛	—	—	—	—	—	
Yerrakonda ......*G*	/9 1/3	/9 1/3	4/	—	0 4 0	187,491	Mysore ...	6-7, Queen-street p.

"THE MINING JOURNAL" SHARE LIST—(Continued)

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896.	Am't. of Share	When last XD and Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Achilles Gld Fld.	2/9 3/3	2/3 2/9	2/6	—	0 2 6	642,456	Otago, N.Z	11, Poultry.
Aladdins Lamp G	1⅜ 1⅞	1⅜ 1⅞	1 0	1/ May. 14 '96	1 0 0	100,000	[..]'knN S.W	4-6, Throg. Avenue.
Anglo-Con. G. Syn	2⅜ 2⅛	2⅜ 2⅛	1 0	100 % '95	1 0 0	99,000	—	22, Austin Friars.
,, Founders...	35 45	35 45	1 0	£4 16/8 2-5d'95	1 0 0	1,000	—	,,
,, French Exp	1 1/16 1 3/16pm	1 1/16 1 3/16pm	1 0	5/- Oct 30 '95	0 10 0	40,000	W. Austral	79, Queen Street.
,, Ger. Explor.	1 1⅛ pm	1 5/16 1 7/16	1 0	5/ Oct. 30 '95	0 10 0	50,000	,,	,,
Arrow BrownhillG	⅝ ¾	⅝ ¾	1 0	—	1 0 0	90,007	Cool.,W.A.	4, Gt. Winchester St.
Assoc. Gold Mines	3 9/16 3 11/16	3½ 3⅝	1 0	—	1 0 0	375,000	,,	20, Bucklersbury
Australasian ......G	3/6 4/	3/9 4/	1 0	-/6 Mar., '92	1 0 0	10,000	Gymp.Q'ld	6, Queen-st. place
Australian C	—	—	20 0	-/9 Aug. '95	7 7 6	218,315	S. Austral.	42, New Broad-street
Aus. Bro. Hill Con.	/9 1/3	-/9 1/3	1 0	1/- June, '91	1 0 0	22,708	BarR.NSW	Winchester House.
Baker's Creek ...G	⅝ ⅞	11/16 13/16	1 0	1/- May '95	0 17 6	500,000	H'gveNSW	Hillgrove, N.S.Wales
Bayley's Reward G	4/ 5/	4/ 5/	1 0	-/4 Dec. 94	1 0 0	480,000	Coolgardie	F'sb'y. H. Bl'mf'ld St.
Big Blow ....G	3/16 5/16	5/16 7/16	1 0	—	1 0 0	150,000	,,	151, Cannon Street.
Blackett's Claim G	1⅜ 2½	6/ 7/	1 0	—	1 0 0	55,000	,,	16, St. Helen's Place.
Black Flag Consld.	1 11/16 1 13/16	2 15/16 2 1/16	1 0	—	—	—	W. Austral	4, Bishopsgte St. Wn
,, Propty.	⅜ ⅞	⅝ ¾	1 0	—	1 0 0	140,000	Coolgardie	1, Metal Exch. Bldgs
Blagroves Freehld.	4/- 4/6	3/9 4/3	2/6	—	0 2 6	500,000	Corom. N Z	Dashwood House.
Bonnie Dundee G	7/- 8/-	7/ 8/	1 0	—	0 18 6	120,000	C. T.Q'land	16, S. Helen's Place
Brilliant.......G	13/16 15/16	13/16 15/16	2 0	-/8 Apr.27,'96	2 0 0	250,000	,,	Charters Towers.
,, Block...G	1 5/16 1 7/16	1 5/16 1 7/16	1 0	-/6Dec. 16 '95	1 0 0	70,000	,,	16, S. Helen's Place
,, St.Geo.G	1½ 1¾	1½ 1¾	10/	-/6 June 8 '96	0 10 0	72,000	,,	Charters Towers.
Brit. Brok. Hill S	1¼ 1⅜	1 5/16 1 9/16	1 0	—	1 0 0	240,000	N.S. Wales	Dashwood Ho., E.C.
Broad Arrow	2/9 3/3	2/9 3/3	5/	—	0 4 6	100,000	W.Feather	57, Moorgate Street.
Broken Hill Prop.S	2⅛ 2⅜	2⅛ 2⅜	8/	1/- May 29 '96	0 8 0	960,000	N. S. Wales	3, Gt. Winchester st.
Brownhill Propty.	13/16 15/16	⅞ 1	1 0	—	1 0 0	125,000	,,	4, Gt. Winchester st
Burbank's B'rthd'y	1⅞ 2	1 13/16 1 15/16	1 0	—	1 0 0	150,000	Coolgardie	Copthall House.
Cassidy Hill ......G	¾ ⅞	1 1⅛	1 0	—	1 0 0	115,000	Coolgardie	9-10, King Street,E.
Central Boulder G	¾ ⅞	⅞ 1	1 0	—	1 0 0	93,522	K'lg'rl,WA	Wor'st'r Ho.,Walbr'k
,, Exp. & Invst.	⅛ ¼ pm	⅛ ¼ pm	1 0	4·8d Mar 12'96	—	—	W. Austral	1, Met. Exchg. Bldgs
,, ,, of W.A.	1⅜ 1½	1 5/16 1 7/16	1 0	1/7½Mar 27 96	1 0 0	122,000	W. Austral	2, ,,
Charters Tow. ...G	1/9 2/3	1/9 2/3	10/	—	0 9 6	200,000	Queenslnd	110, Cannon Street
,, Consolid....	/9 1/3	/9 1/3	10/	—	0 9 6	300,000	,,	110, ,,
Colonial Finance...	4⅜ 4⅝pm	4⅜ 4⅝pm	1 0	10/ Mar. 27 '96	0 10 0	21,140	W. Austral	139 ,,
,, Gold Fields	1 1⅛ pm	1 1⅛ pm	1 0	—	0 12 6	75,250	,,	70, Cornhill.
Con. G. M. of W.A.	7/16 9/16	7/16 9/16	1 0	—	1 0 0	246,779	Pilbarra ...	30, Moorgate Street.
,, Murchison ...	¾ ⅞	¾ ⅞	1 0	—	1 0 0	225,533	Murc.,W A	Broad Street House.
Contl. &W.A. Trust	1⅛ 1¼	1 3/16 1 5/16	1 0	—	1 0 0	104,467	W. Austral	Broad Street House.
Coolgardie Gold ...	1⅛ 1⅜	1⅛ 1⅜	10/	x.rts.Jun12'96	0 5 0	90,000	Cool.W.A.	Broad Street Avenue
,, Mint & I.Kg.	2 2⅛	2 5/16 2 7/16	1 0	—	1 0 0	150,000	,,	30, S. Swithin's ln.
Craven' Cal. ... G	1/6 2/6	1/6 2/6	6/	-/3 June 94	0 4 8	100,000	Queenslnd	30-1, S. Swithin's-le.
Croesus So. United	2 5/16 2 7/16	2⅜ 2⅝	0	—	1 0 0	116,000	Hann'sWA	Blomfield House
Crown United......	1⅛ 1⅜	1⅛ 1⅜	1 0	—	1 0 0	75,000	—	110, Cannon-st., E.C.
Cumbrlnd (New)G	/9 1/3	/9 1/3	1 0	2/6 Dec.,'87	0 19 0	184,890	Queenslnd	Blomfield House.E C
Day Dawn B.&W.G	13/- 13/6	13/ 13/6 xd	1 0	-/6 June 12 '96	1 0 0	498,400	,,	16, S. Helen's Place
,, P. C. G	3/9 4/3	3/9 4/3	1 0	-/6 Apr, '92	1 0 0	490,000	,,	Winchester Ho., E C
Eaglehawk.........G	1/ 1/6	1/ 1/6	1 0	—	0 18 0	120,000	Victoria ...	71-72, King Wm. St.
Eagle's Nest	⅞ 1	15/16 1 1/16	1 0	—	1 0 0	2,500	Mt.Margrt	Finsbury House.
Explorers Synd. ...	⅜ ½ pm	5/16 7/16pm	1 0	2/8 April 29'96	1 0 0	9,000	W.Austral	Copthall House
Fingall R'fs. Extd	⅝ ⅞	11/16 13/16	1 0	1/4 Jan. 16 '96	1 0 0	150,000	,,	4, Sun Court
Florence ....G	2 1/16 2 3/16	2 3/16 2 5/16	1 0	—	1 0 0	50,000	,,	18, St. Swithin's ln
Gibraltar Cons......	1¼ 1⅜	1 9/16 1 11/16	1 0	—	1 0 0	300,000	N S Wales.	6, Queen-street-place
Gladiator ....G	¾ 1	¾ 1	1 0	—	1 0 0	—	W. Austral	43, Threadneedle st
Glenrock .... G	1/9 2/3	1/6 2/	1 0	—	0 8 0	225,000	N. Zealand	3-5, Queen-st. E.C.
Golden Cement G	1⅝ 1¾	1 3/16 1 5/16	1 0	—	1 0 0	175,000	W.Austral	3, Princes Street, EC
,, Crown... G	2 3/16 2 5/16	2 2¼	1 0	—	1 0 0	100,000	,,	54, Old Broad Street.
,, Gate......G	/6 1/6	/6 1/6	10/	—	0 10 0	150,000	Queenslnd	34-36, Gresham-st.
,, Horse Shoe...	2 2⅛	2¼ 2⅜	1 0	—	1 0 0	—	W.Austral	13. Helen's Place
,, Link ......G	1¼ 1⅜	1¼ 1⅜	1 0	5/- Oct 30'95	1 0 0	90,000	,,	9-10, King Street,E.C
,, Plum......G	1 1⅛	1¼ 1⅜	1 0	—	1 0 0	120,000	,,	4, Bishopsgate Street
Gold Estates......	2⅜ 2½xd	2 9/16 2 11/16xd	1 0	3/ June 12 '96	1 0 0	80,000	,,	20, Bishopsgte-st Wn
Great Boulder ...G	8 8⅜ x. all	7⅞ 8⅛xall	1 0	4/&rtsJn.12,96	1 0 0	240,000	Yilgarn ...	3, Gracechurch st.
,, ,, Junction	1⅛ 1⅜	1⅛ 1⅜	—	—	—	—	,,	Worc. Ho., Walbrook
,, ,, M'n R'fs	1½ 1⅝	1 9/16 1 11/16	10/	—	0 10 0	240,000		3, Princes Street.
,, Fingall Rfs.	⅝ ⅞	1 1/16 1 3/16	1 0	5% Jan. 16, 96	1 0 0	175,000	Kurnalpi	Broad Street House
Gresham Synd. ..	⅛ ¼ pm	¾ 1 pm	1 0	4/ &bo.Jn12'96	1 0 0	50,000	W. Austral	13-14, Abchurch ln.
Hainault	3⅝ 3⅞	3⅝ 3⅞	—	—	—	—	—	82, Gordon st., Glas.
HamptonGoldFlds	1 1⅛	1 1⅛	1 0	—	0 10 0	—	—	9, S. Mildred's Ct.
,, GoldHill	/6 1/	-/6 1/-	1 0	—	—	—	—	93-94,Gracechurch st
,, Plains...	5 1/16 5 3/16	5⅛ 5⅜	1 0	rts May 14 '96	1 0 0	300,000	Cool. W.A.	29, S. Swithin's lane
,, PlainsEx	8/ 9/	8/ 9/	1 0	—	0 18 0	180,000		Suffolk House, E.C.
Hannan's BrwnHil	6⅛ 6⅜	6⅛ 6⅜	1 0	—	1 0 0	65,000	,,	Broad Street House.
,, Devel'pm'nt	13/16 15/16	—	1 0	—	1 0 0	147,000	—	5, Moorgate-st.-bldgs
,, Main Reef...	12/ 14/	14/ 15/	10/	—	0 10 0	—	Kalg.W.A.	18, St. Swithin's ln.
,, North.........	1⅛ 1¼	1⅛ 1¼	1 0	—	1 0 0	51,107	,,	33, Cornhill.
,, 100 Acre......	1⅛ 1⅜	1¼ 1⅜	1 0	—	—	—	,,	Dashwood House.
,, Oroya	1⅜ 1½	1 7/16 1 9/16	1 0	—	1 0 0	—	,,	20, Bucklersbury
,, Prop.	2⅛ 2⅜	2⅜ 2⅞	1 0	—	0 10 0	—	—	139, Cannon Street.
,, Reward... G	3⅞ 4⅛	4⅛ 4⅜	1 0	—	1 0 0	70,000	Hann.WA	Bartholomew Ho,
,, Star..........	1 3/16 1 5/16	1⅛ 1⅜	1 0	—	1 0 0	—	E.Coolgde.	Finsbury HouseE.C
Hauraki........... G	21/- 22/	18/6 19/6	2/6	1/ Mar. 27 '96	0 2 6	250,000	Coromndl.	Dashwood Ho.; E.C
Hawk's View	⅝ ¾	9/16 11/16	1 0	—	1 0 0	40,000	W. Austral	71-72, King Wm. St.
Hit or Miss	2 3/16 2 5/16	2 3/16 2 5/16	1 0	—	1 0 0	120,000	Cool.,W.A.	1, Queen Vic St.
Idaho ....GS	5/ 6/	5/ 6/	10/	-/6 Jan.,16 '96	0 5 0	143,439	W. Austral	Copthall House.
Kaboonga ....G	1/3 1/9	1/6 2/	10/	—	0 9 9	249,250	Queenslnd	70-71,Bishopsgate st
Kalgurli............	2 3/16 2 5/16	2⅜ 2½	1 0	—	1 0 0	24,000	W. Austral	20, Threadneedle-st
Kapanga...........G	17/ 18/	17/6 18/6	1 0	rts May 24 '95	0 19 6	249,760	N.Zealand	9, New Broad-street.
Kinsella (New)...G	7/6 8/6	7/6 8/6	1 0	—	0 18 0	80,340	Murchison	33, Broad-st. Avenue
Kintore ....G	⅝ ¾ dis	par ¼ pm	1 0	—	0 15 0	44,100	W. Austral	3, Abchurch lane.
Komata Reefs	12/6 13/	12/9 13/3	5/-	—	0 5 0	—	Ha'raki,NZ	Dashwood House.
Kurnalpi............G	6/6 7/6	6/6 7/6	1 0	--	-	—	Coolgardie	Throgmorton House
Lady Loch...........	3 11/16 3 13/16	4 4⅛	1 0	—	1 0 0	70,000	,,	34-36. Gresham-st.
,, Mary Amalg.	⅝ ⅞	⅝ ¾	1 0	—	1 0 0	46,000	Murchison	Finsbury House.
,, Shenton	3 3⅛	3 3/16 3 5/16	1 0	—	1 0 0	—	—	18, St. Swithin's ln
LakeView& BldrE.	7⅜ 8	7⅜ 8	10/	-/6 Jan. 2 '93	0 7 6	—	—	90, Cannon Street.
Limerick	1 1⅛	1 1/16 1 3/16	1 0	—	1 0 0	52,537	Coolgardie	Leadenhall Buildgs.
Ln. & Con. Invest.	⅛ ¼ pm	⅛ ¼ pm	1 0	—	1 0 0	500,000	W. Austral	79, Queen Street.
Ln. & Globe Fin.	3 11/16 3 13/16	4 4⅛	1 0	rts Mar. 27 '96	0 15 0	—	,,	15, Austin Friars.
Londonderry......G	5/6 6/6	6/6 7/6	1 0	—	1 0 0	467,000	,,	3, Gracechurch-st.
Ln.& W. Aust. Expl.	2 2⅛	2 2⅛	1 0	4/-Nov 29 '94	1 0 0	270,100	,,	Broad Street Ho.
Ln. W. A. Invest.	2¼ 2⅜	2⅝ 2¾	1 0	4/ Oct 16 '95	1 0 0	100,000	,,	,,
Mainland Cons. G	3⅜ 4	3 15/16 4 1/16	1 0	—	1 0 0	150,000	Murchison	54 Old Broad Street
Mason's Rewrd.G	13/16 15/16	⅞ 1	1 0	—	1 0 0	60,000	,,	28 & 29,S.Swithin's ln
Menzies Gold Est.	1 1⅛	1 1/16 1 3/16	1 0	—	1 0 0	—	,,	Broad Street House
,, Gold Reef	2¼ 2⅜	2 2⅛	1 0	—	1 0 0	175,000	,,	28a, Old Broad Street
,, (O'Driscoll)	1 1/16 1 3/16	1⅛ 1¼	1 0	—	1 0 0	—	,,	16, Tokenhouse Yard
Mills' Day DawnG	⅝ ⅞	11/16 13/16	1 0	-/6 Aug 29 '95	0 15 6	300,000	Queenslnd	16, S. Helen's Place
[..]man ....G	2/6 3/-	2/6 3/	1 0	—	0 19 0	155,000	N.S. Wales	Bishopsgate House
Mount Lyell......	8¼ 8⅜	8¼ 8⅜	3 0	—	3 0 0	300,000	Tasmania	Finsbury House
Mount Margaret...	2 7/16 2 9/16	2 9/16 2 11/16	1 0	—	1 0 0	—	W. Austral	28, St. Swithin's ln.
,, Morgan G	3⅜ 3⅝xd	4 xd	1 0	-/6 June12, '96	0 17 6	1,000,000	Queenslnd	9, Gracechurch-st.
,, Rowe	1 1/16 1 3/16	1⅛ 1¼	1 0	—	1 0 0	75,000	Coolgardie	44, Coleman Street
MurchisonN.Ch'm	8/ 9/	8/6 9/6	1 0	1/- Oct 30 '95	1 0 0	160,000	,,	23, College Hill.
[..] Hauraki Props	5/ 6/	5/ 6/	5/	—	0 5 0	200,000	Ha raki,NZ	Dashwood House.
,, Queen ......G	7/ 8/	7/ 8/	1 0	-/6 Sep 12 '95	0 13 6	158,915	Queenslnd	71-72, King Wm. St.
Norseman	1⅞ 2	1⅞ 2	1 0	—	1 0 0	200,000	Dundas ...	30, S. Swithin's lane
North Boulder......	1 9/16 1 11/16	1⅝ 1¾	10/-	—	0 10 0	—	W. Austral	18, Helen's Place
,, Coolgardie ...	1/ 1/6	1/ 1/6	5/	—	0 4 0	400,000	Pilbarra ...	226, Winchester Ho.
,, Kalgurli	15/16 1 1/16	15/16 1 1/16	1 0	—	1 0 0	—		11, Abchurch lane
,, Qld. ,, Agency	1 1¼	1⅛ 1⅜	1 0	30 % Aug. '95	1 0 0	90,000	Queenslnd	10 New Broad Street
[..]ern G M Assoc	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	80,000	—	Broad-street House
Paddington Cons.	1⅝ 1⅞	1 13/16 1 15/16	1 0	—	1 0 0	75,000	W. Feather	77, Bishopsgate-st.
Pambula	1 1 1/16	1 1 1/16	1 0	—	—	100,000	N. S. Wales	Winchester House.
Pilbarra G. F.	⅞ 1	1 1⅛	1 0	2/ May 14,' 96	1 0 0	100,000	Pilb, W. A.	38, Coleman-street.
[..]age Syndicate	4⅝ 5	5⅛ 5⅜	1 0	£2& rts F.13 96	1 0 0	50,000	W. Austral	4, Bishopsgate-st.
Royal Oak	4/3 4/9	3/ 3/6	5/	—	0 3 0	200,000	N. Zealand	Dashwood House.
,, Sovereign ...	4 5	2⅝ 3	1 0	—	1 0 0	60,000	Coolgardie	8, Old Jewry, E.C.
[..]slaws	12/ 13/	13/ 14/	1 0	—	1 0 0	85,000	,,	Broad Street Avenue
ScottishAustralian	¾ ⅞	¾ ⅞	1 0	/3 Aug., '95	1 10 0	200,000	N. S. Wales	Winchester Ho. E.C.
[..]tty's Hauraki...	4/ 4/6	4/ 4/6	5/-	—	0 2 0	400,000	N. Zealand	5, Drapers gardens
South Kalgurli ...	1⅜ 1⅞	1¼ 1⅜	1 0	—	1 0 0	60,000	W. Austral	20, Great Win. St.
Spray Shot & Excl	1⅛ 1¼	15/16 1 1/16	1 0	—	1 10 0	—	Pilb., W A	20. S. Swithin's lane.
Taeru............	9/6 10/6	10/ 11/	10/	—	0 5 0	90,000	N-Zealand	Dashwood House.
Tokatea of Hauraki	3/3 3/9	2/9 3/3	5/	—	0 3 0	—	,,	63, New Broad St.
Town Prop. of W A	1 1/16 1 3/16	1¼ 1⅜	1 0	—	0 15 0	250,000	W. Austral	28-9, S. Swithin's-ln
True blue	1 1/16 1 3/16	1⅛ 1⅜	1 0	—	1 0 0	—	,,	Dashwood House.
Victory (C.T.)...G	5/ 6/	5/ 6/	5/	-/6 May, '94	0 5 0	40,000	Queenslnd	32, Gresham-st.. E.C
Waihi............ G	7⅛ 7⅜xd	7⅛ 7⅜xd	5/	2/-June 12,'96	1 0 0	130,000	N. Zealand	11, Abchurch-ln. E.C
,, Silverton	3⅝ 3⅞	4 4⅛	1 0	—	1 0 0	60,000	,,	23, College Hill
Waitekauri	5¾ 6	5⅝ 5⅞	1 0	—	1 0 0	136,000	,,	,,
,, Extended ...	12/6 13/6	8/6 9/6	10/	—	0 10 0	130,000	,,	63, New Broad St.
Waratah............G	10/ 11/	9/6 10/6	10/	—	0 10 0	100,000	Crydn,N Z	43, Threadneedle st
Water Trust Min.	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	120,000	W. Austral	Broad Street House
W. of Nations......	1 9/16 1 7/16	1 11/16 1 13/16	1 0	—	0 15 0	—	—	77, Bishopsgate-st.
Wentworth .....G	15/16 1 1/16	15/16 1 1/16	1 0	1/- Apl 15 '96	1 0 0	600,000	N. S Wales	4-6, Throgmort. Av.
W. A. Develop's.	15/16 1 1/16	1 1⅛	1 0	rts May 14 '96	1 0 0	80,000	—	49-53, Moorgate court.
W Aust. G.Conces.	1⅜ 1⅞	1⅝ 2	1 0	2/ Sept 27 '95	1 0 0	£55,000	W. Austral	33, Old Broad st., EC.
W.A. Ex & Fin.	3 11/16 3 13/16	4 5/16 4 9/16	1 0	rts Mar. 27 '96	1 0 0	200,000		58,

AUSTRALIAN AND NEW ZEALAND MINES—(Continued).

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896	Am't. of share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
W. A. General......	4⅛ 4¾	4⅛ 4⅜	1 0	—	0 14 0	—	W. Austral	28, St. Swithin's-ln.
,, Australian G.F.	10⅜ 10⅝	10⅝ 10⅞	1 0	rts Mar 12 '96	1 0 0	65,000	Coolgardie	28-29, ,,
,, ,, Mines Dvl	1⅛ 2 pm	1½ 2 pm	1 0	10/ Oct 30, 95	1 0 0	40,000	W. Austral	3, Princes Street
,, Aust. Mining	8/- 9/	8/ 9/	5/	7½d.Mar.27'96	0 5 0	320,000	,,	257, Winchester Ho.
,, Aust. Pioneer.	1⅝ 1⅞pm	2¼ 2⅛pm	1 0	10/ June 12 '96	1 0 0	19,993	,,	139, Cannon-street.
,, ,, Share Corp.	1 9/16 1 11/16pm	1 13/16 1 15/16p	1 0	—	0 5 0	200,000	,,	28, St. Swithin's ln
,, ,, Venture......	2¼ 2½pm	2¼ 2¾ pm	1 0	15/ Oct. 30 '95	1 0 0	—	,,	2, Princes Street.
West Boulder	⅞ 1	1⅛ 1¼	—	—	—	—	—	
White Feather ...	2 1/16 2 3/16	2⅛ 2¼	1 0	—	1 0 0	60,000	Coolgardie	28 & 29,S. Swithin's ln
Zapopan............G	3/ 4/	3/ 4/	1 0	—	1 0 0	25,000	NWAustra	70,Bishopsgate-street
Zeehan Montana S	—	—	1 0	-/4 Dec. 95	1 0 0	66,000	Tasmania	11, Queen Victoria st
,, ,, ...	—	—	1 0	2½ Dec. 95	0 2 6	12,000	,,	,,

EUROPEAN MINES.

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896	Am't. of share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alamillos L	1¼ 1½	1¼ 1½	£ 2 0	1/9 Apr 15 '96	2 0 0	35,000	Spain	6, Queen-street-place
Consett Ore	7⅛ 7⅜	7⅛ 7⅜	1 0	5/- July 94	1 0 0	55,200	Spain	19, Grey-st,N'castle.
Fortuna L	¾ 1	¾ 1	2 0	1/- Apr 15 '96	2 0 0	25,000	Spain	,,
Libiola................C	2⅞ 3⅛	2⅞ 3⅛	5 0	4/- Apr. 29 '96	5 0 0	50,400	Italy	Dashwood Ho., E.C.
Linares L	5¼ 5¾	5¼ 5¾	3 0	9/- Apr 15 '96	3 0 0	14,998	Spain	6, Queen-street-place.
Mason & Barry...C	3⅛ 3⅜	3⅛ 3⅜	5 0	2/ May 23 '94	5 0 0	185,172	Portugal	87, Cannon-street.
Pestarena ....G	7/6 8/6	7/6 8/6	3 0		3 0 0	67,509	Italy	6-7, Queen-street-pl.
Pontgibaud ....SL	—	—	20 0	11/6 Dec. '94	20 0 0	14,000	Coueron...	,,
Rio Tinto C	24¾ 25	23⅝ 23⅞	10 0	10/- Oct.30 '95	10 0 0	325,000	Spain	30, St. Swithin's-lane
,, (1st Mrt. Bds)	104 105	104 105	100 0	4% Ap'. 1, 96	100 0 0	£3600,000	,, ...	
Ripanji ....SQ	—	—	1 0	—	0 19 0	95,000	Servia......	120,Bishopsgt-st,Wn
Tharsis...... ..C Sul	6 6¼	6 6	2 0	7/- Apr 29 '96	2 0 0	625,000	Spain	Glasgow.
West Prus Pre.pref	—	—	10 0	3% Mar. 31 '96	10 0 0	1,500	Germany	Walbrook Ho., E.C.
,, Prussian Pre.	—	—	10 0	8% Mar. 31 '96	10 0 0	5,450	,,	,,
,, Prussian Or.	—	—	10 0	4% Mar. 31 '96	10 0 0	14,050	,,	,,
Wohlfahrt L	—	—	1 0	3% Dec. '94	1 0 0	99,634	Prussia ...	17, Victoria-st., S.W
,, ...	—	—	1 0	3% Dec. '94	10 0	9 090		,,

NORTH AMERICAN MINES.

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896	Am't. of share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alaska Mexican...G	1⅛ 1⅜	1⅛ 1⅜	$5	4 4-5d. Feb.,96	$5	160,000	Alaska......	30, St. Swithin's-ln.
,, TreadwellG	4¾ 5¼	4¾ 5¼	$25	1/6 Dec 24, '95	$25	200,000		
Anaconda C	7 11/16 7 13/16	7 11/16 7 13/16	—	—	—	—	—	
Anglo Mexican ...S	¼ ½	¼ ½	5 0	1/- Apr. 15 96	5 0 0	74,850	,,	23, College Hill;
Arizona (Pref.) Cu	61/ 61/3	51/9 61/	4 0	1/6 Feb. 13,'96	4 0 0	158,920	Arizona...	74, Geo.-st., Edinbor
,, 6½ A Deben.	112¼ 1.3	112	100	6½ % May14'96	100 0 0	£135,300	,,	,,
,, 7% B Deben.	99 99½	99	100 0	7% May. 14 '96	100 0 0	£181,300	,,	
De Lamar.........GS	15/ 16/	15/- 16/-	1 0	1/- Feb. 13 '96	1 0 0	400,000	Idaho......	6, Drapers-gardens.
Dickens CusterGS	-/9 1/3	-/9 1/3	1 0	—	0 19 9	420,000	,,	Winchester Ho. E.C.
Doric..................G	8/9 9/3	9/ 9/6	5/	—	0 5 0	125,000	Colorado...	
Elkhorn Priority S	½dis ½ pm.	½dis ½pm	1 0	-/3 June 26 '96	0 10 0	175,007	Montana	6, Draper's-gardens.
Gen. M'g. Assoc. ...	6½ 7	6½ 7	5 10	12/-May 14 '96	5 10 0	27,469	C. Breton	Blomfield House.
Golden Feather G	9/16 11/16	9/16 11/16	1 0	—	1 0 0	180,000	California	St. Stephens Cs E.C
,, Gate ......G	3/- 4/-	3/ 4/	1 0	—	0 19 6	79,600	,,	,,
,, Leaf......G	1/- 1/6	1/ 1/6	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Harquahala... .. G	3/ 3/6	3/ 3/6	1 0	-/6Nov.14,'94	1 0 0	300,000	Arizona ..	6, Draper's Gardens.
Holcomb Valley G	/9 1/3	/6 1/3	5/	—	0 5 0	540,000	California	14, Cornhill. E.C.
Jackson Goldfields	/6 1/	/9 1/3	5 0	—	0 5 0	408,635	,,	11, Poultry, E.C.
La Plata.............S	/6 1/	/6 1/	5/	1/3 Oct. '82	0 4 6	405,000	Colorado	11, Poultry, E.C.
La Yesca ....GS	1/ 1/6	1/ 1/6	1 0	—	0 19 6	200,000	Mexico ...	20, Bucklersbury, EC
Montana......... GS	5/6 6/6	7/3 7/9	1 0	-/3 Mar 27 '96	0 19 0	657,158	Montana	Gresham House,E.C.
New Guston ......S	⅛ ¼	⅛ ½	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A, Old Broad-st.
Palmarejo ......GS	2/3 2/9	2/3 2/9	1 0	—	1 0 0	418,888	Mexico ...	32, Old Jewry, E.C.
PinosAltos(Df)GS	⅜ 5/16	⅛ 3/16	1 0	-/6 Mar.' 90	1 0 0	100,000	,,	110, Cannon-street.
Richmond ...GSL	1¼ 1½	1⅛ 1⅜	5 0	1/- Dec. 16 '95	5 0 0	54,000	Nevada ...	44, Coleman-street.
St. George	/9 1/3	/9 1/3	5/	—	0 4 9	—	G'o'giaUSA	S. Geo Ho., E'cheap
Sierra Buttes ...G	5/16 7/16	5/16 7/16	2 0	-/3 Apr. 29 '96	2 0 0	122,500	California	138, Leadenhall-st.
,, Plumas Eur. G	7/16 9/16	7/16 9/16	2 0	-/9 Apr. 29 '96	2 0 0	140,265	,,	,,
Springdale.........G	/9 1/	/9 1/-	$1	-/2 Sep. 28, 9	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1 1¼	1 1½	1 0	3/- Feb. '95	1 0 0	26,000	,,	5, Lawrence P. Hl. E

SOUTH AND CENTRAL AMERICAN MINES.

Name.	Closing Price, June 19, 1896	Closing Price, June 12, 1896	Am't. of share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Anglo-Chilian PtN	11 11⅜	11 11⅜	10 0	7/0 Feb. 27 96	10 0 0	35,000	Antofagst.	123, Bishops,-st W
,, 6% RylstMB	110 113	110 113	100 0	6% Jan. 2 '96	100 0 0	£200,000	,,	
Argen.Concessions	1/6 2/	1/6 2/	2/	—	0 2 0	150,000	S. Luis ...	3 & 5, Queen Street.
Caratal............ G	/6 1/	/6 1/	2/6	—	0 2 6	1,330,000	Venezuela	57, Moorgate-st. E.C
Caylloma............S	⅞ 1	⅞ 1	2 0	1/- Apr. 94	2 0 0	125,000	Peru	52, Leadenhall street
Colon ....G	-/3 /9	-/3 /9	5/	—	0 4 0	200,000	Colombia	5,Copthall-bdgs.,E.C
Colorado Nit. ...N	1⅝ 2	1⅝ 2	5 0	2/6Dec.16,'95	5 0 0	32,000	Chili	12, King-st., Liverp'l
Colombian Hy...G	⅜ ⅝	⅜ ⅝	1 0	1/- Jy 26, '95	1 0 0	75,000	Colombia	10, Blomfield-street
Copiapo C	2⅛ 2¾	2⅜ 2⅝	2 0	2/ May 29, '96	2 0 0	100,000	Chili	DashwoodHouse,E.C
Darien "A" ......G	7 7¼	7⅜ 7⅞	1 0	—	1 0 0	49,553	Colombia	Manchester.
,, "B"	8⅝ 9¾	9¾ 10	1 0	x.nwApr 29'9.	1 0 0	30,000	,,	,,
El Callao ....G	⅛ ⅜	⅛ ⅜	5 0	9½d. Feb. '94	5 0 0	257,600	Venezuela	8, Bishopsgt.-st, Wn
Frontino & B....G	15/16 1 1/16	15/16 1 1/16	1 0	6d. Jan. 15 '94	1 0 0	128,662	Colombia	164, Gresham House
Glenrock ....G	1/9 2/3	1/6 2/	1 0	—	1 0 0	199,948	Arg. (& I.)	3-5, Queen-street, E.C
Gravel ....G	/6 1/6	/6 1/6	1 0	—	1 0 0	100,000	Colombia	10, Blomfield-street
Guadalupe ......GS	3/6 5/-	3/6 5/	1 0	—	1 0 0	120,000	Honduras	14,Union ct.Old Brd
Julia Taital ......N	—	⅛ ¼	1 0	—	1 0 0	105,234	Nicaragua	139, Cannon-street.
Lagunas ....N	2⅞ 3⅛	2⅞ 3⅛	5 0	15p.c.Dec.'94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro ....N	6¼ 6¾	6⅝ 7	5 0	5/- Dec. 30 '95	5 0 0	110,000	Chili	70, ,,
Liverpool ....N	7⅜ 8½	8 9	5 0	15/- May 14, 96	5 0 0	22,000	,,	Liverpool.
Loma ....G	-/6	/6	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building.
London Nit........N	1⅜ 2¼	1⅜ 2¼	3 0	3/4¾ Nov. '91	5 0 0	10,000	Chili	9, Gracechurch-st
,, Nit.(Pref.)	3⅝ 4⅛	3½ 4⅛	5 0	6% Nov. 28'95	5 0 0	22,000	,,	,,
Macate	1/ 1/6	1/- 1/6	2/	—	0 2 0	200,000	Peru	11, Old Broad-st, E.C
New Tamarugal N	⅛ ¼	⅛ ¼	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
,, 8 % Cum Pref	⅜ ½	11/16 13/16	1 10	8 p.c. Feb. '95	1 10 0	130,000	,,	,,
,, 6 p.c. Debs ...	90 94	88 90	100 0	6 p.c. Feb. '96	100 0 0	£260,000	,,	,,
Orita......... ....G	1/ 1/6	1/ 1/6	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street
Ouro Preto ... . G	—	—	1 0	1/- Feb. '96	1 0 0	80,000	Brazil	6, Queen-street-place
Pac. & Jazpampa N	1 1¼	1⅛ 1⅜	5 0	4/- May, '95	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Phœnix	-/9 1/-	/9 1/-	10/-	—	0 8 0	400,000	S. Luis ...	3 & 5, Queen Street.
Quebrada C	⅛ ¼	1/16 ⅛	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	34, Nicholas Lane.
Rosario ....N	5 5⅛	5 5⅛	5 0	5/- Feb.13 '96	5 0 0	120,000	Chili	7½ OldBroad-stree
,, (5% Deb.)	104 107	104 107	100 0	5% Apr. 1 '96	100 0 0	£475,000	,,	,,
,, Hu'r'Db Scrp	106 109	106 119	100 0	5% Jan. 2 '96	100 0 0	£200,000	,,	,,
St.John del Rey G	19/ 20/	19/6 20/6	1 0	x.rtsNov 13 '95	1 0 0	327,650	Brazil	Finsby.Ho.,Blmf'd st
San Donato ... ...N	¼ 1¼	¾ 1¼	5 0	2/6 May 24 '95	5 0 0	32,000	Chili	12, King-st., Liverp'l
,, Jorge ....N	5¼ 5¾	5⅛ 5⅜	0	7/6May, 29 '96	5 0 0	75,000	,,	9, Gracechurch-st
,, Pablo ....N	1⅞ 2⅜	1⅞ 2⅜	0	5/-Oct. 30 '95	5 0 0	32,000	,,	
,, Sebastian ...N	1¼ 1¾	1¼ 1¾	5 0	5/ May 24 '95	5 0 0	29,000	,,	Dashwood HouseEC
Santa Barbara ...G	⅜ 5/16	⅜ 5/16	10/	1/3 Dec. '86	0 10 0	60,000	Brazil......	Liverpool
,, Elena ....N	⅜ ⅝	⅜ ⅝	5 0	5/-Nov. 15 '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
,, Rita ....N	3⅛ 4	3⅜ 4¼	5 0	10/May 29 '96	5 0 0	20,000	Chili	DashwoodHouse,E.C
Tolima "A" ......S	5 6	5 6	5 0	5/-Mar. 12 '96	5 0 0	14,000	,,	12, Finsbury-circus.
,, "B" ......S	4⅛ 5⅛	4⅛ 5⅛	5 0	5/- Mar 12 '96	5 0 0	6,000	,,	,,

PARIS LETTER.

Position of the Kaffir market.—A drop in South African securities.—M. Aubert's report on the Transvaal.—Colonial and foreign mining enterprises.—Lead mining in France.

THE sudden inflation of South African values, which began with the lifting of the political cloud in the Transvaal, has been checked this week by heavy realisations of nearly all the leading shares. This is due to purely artificial causes, and does not reveal any special weakness in the Mining Market. For some time past, indeed, brokers have been looking with an unfavourable eye upon the recrudescence of outside speculation which they believed would, if allowed a free hand, place them in a position similar to that of last autumn, when the gambling fever narrowly escaped producing a serious crash. Now that gold mining investment is once more recovering its former vigour, the leading financial concerns are very anxious to prevent it from degenerating into a reckless speculation, and everything is being done to prevent the small speculators from committing themselves beyond their means of settlement. The syndicate of jobbers has, for instance, doubled the guarantee required of dealers on the Marché Libre, and these exigencies have compelled a great many small holders to realise in order to be safe for the liquidation. Of course, on the face of it, the financial houses may have some warrant for thus protecting the market from the abuses of weak speculators, but these latter urge that the *coulisse* has only taken these measures in their own interest. They are, it is claimed, compelling holders to realise so as to bring down prices and enable them to buy up under more favourable conditions, and it is certain that the present position of the market seems to fully justify this contention. Another factor in the quietude of mining shares is the conviction of speculators that the upward movement must necessarily be a slow one, and that it is preferable to bide their time. They are not inclined to do much until they can ascertain the probable cause of buying on the Stock Exchange. Until London begins to launch out more vigorously in the purchase of gold mining scrip it is thought to be extremely hazardous for French buyers to take up these shares too freely, as people here know from experience that in acting hastily they more often than not play into the hands of London speculators. Moreover, the market is invariably quiet upon the eve of the introduction of new values, and in the course of a few days several new concerns, like African Estates, are to be officially quoted on the Bourse. For the moment the realisations of weak holders have resulted in a heavy decline in most of the South African securities, and on Thursday the quotations of the principal shares dealt in were as follows:—De Beers, 777 francs; Chartereds, 93 francs 50 cents; East Rands, 208 francs 50 cents; Ferreiras, 525 francs; Geldenhuis, 98 francs; Gold Fields, 329 francs; Kleinfonteins, 97 francs; Langlaates, 150 francs; Randfonteins, 80 francs 75 cents; Robinson Mines, 245 francs; Shebas, 53 francs; Transvaal Consolidated, 57 francs.

A great deal of prominence has been given this week to the report that has been sent home by M. Aubert, the French Consul at Pretoria, upon the mining and economic situation of the Transvaal. It was thought that M. Aubert would have dealt somewhat fully with the prospects of the leading mining companies, as it will be remembered that last year he confined himself almost entirely to an appreciation to the manner in which the industry was conducted, and condemned in no measured terms some of the leading concerns. Apparently satisfied that he has done good work in cautioning the French public against investing in companies that are not recognised as thoroughly sound, he now contents himself with merely publishing statistics showing the growth of the Rand industry, and devotes his comments to the opportunities that are opened up for the investment of French capital in industrial enterprises in the Transvaal. From the information he thus gives it seems that there has been quite a heavy immigration of French people into the South African Republic during the past six months, mostly bankers, journalists, engineers, and shopkeepers. This last-named class, however, are not expected to meet with much success, as they are not possessed of sufficient resources to meet the competition of their foreign rivals, and M. Aubert is not very hopeful of the French doing much in the Transvaal, unless they are prepared to sink a good deal of capital. Nor can French traders expect to build up much of a connection until they are able to send their goods straight to the Transvaal over French lines, but it seems that all attempts to run steamers between France and South Africa, so far, have failed, owing to the fact that the French owners will not establish a line unless they are guaranteed enough freight. So far as economic questions are concerned, this report of M. Aubert is very interesting, but it gives very little fresh information concerning the industry of the Rand.

Apart from Kaffirs, the French investor is taking very little interest in mining ventures at the present moment, but judging from the negotiations that are now in progress for the flotation of new companies, it is evident that before long the public will be invited to participate in several foreign undertakings. All the financial syndicates are seeking new outlets for the investment of the enormous amount of capital they have at their disposal. Some of them are reported to be in a very flourishing situation, and have made considerable profits out of speculation in South African shares during the past few months. As the confidence which they have inspired has enabled them to command almost unlimited capital, they are endeavouring to utilise some of it in mining enterprises in California, Australia, Russia, and elsewhere, and engineers have been despatched to nearly all the most promising gold-bearing districts. So far, however, it must be confessed that the French ventures abroad have not been very successful. Holders of shares in the Watana Mine are despairing of ever securing dividends out of this somewhat problematic undertaking, and during the past few years a large number of gold mining companies in South America and elsewhere have been wound up, while now the Compagnie Française des Mines d'Or de Mozambique has been dissolved. It is hoped, however, that this long spell of ill-luck will be broken by the success of the Suberbievielle Gold Mining Company, which is said to be making very active preparations for the recovery of gold by means of expensive Californian hydraulic plant. In Algeria also an attempt is being made by French capitalists to work the phosphate concessions which were so unjustly seized from the British companies, but it is hardly to be expected that they will repair the harm that has been done by the arbitrary intervention of the French Government. Many of the more enlightened French economists are now blaming the Government for the suicidal policy it is adopting in driving British capital away from the colonies, and they deplore the fact that possessions, which would certainly bring in heavy revenues with the co-operation of foreign capital and skill, are becoming a serious burden to the Mother Country.

A fresh attempt is being made by the proprietors of lead mines in France to induce the Government to raise the import duty upon foreign lead so as to permit of the recovery of what they are pleased to call a moribund industry. Those members who are in favour of an increase in the tariff urge that if owners were sufficiently protected several of the lead mines which have been abandoned would be restarted, and a most unfavourable report is given of the condition of the mines now being worked. As a matter of fact, it appears that several of the mines that were held up as expiring ventures are yielding fairly satisfactory returns, while others might be restarted under intelligent management without the necessity of their being protected by further duties. If the industry is no longer profitable it is not due to the poverty of the mines, but to the absence of the enterprising spirit that characterises all mining ventures in this country. The management is generally inefficient and costly, and there is no doubt that if proper economy were observed the lead mines would yield very satisfactory profits. The Pontpéan Mine, in the Ille-et-Villaine, for instance, produces 12,000 tons of lead, which is more than half of the entire output of the country, and there is no reason why this undertaking should not be entirely self-supporting. Again, there are some wonderfully rich mines in the department of Finistère known as the Huelgoat Mines, which were abandoned many years ago, and it is said that in the event of the industry being protected these mines will be restarted. There is really no reason, however, why the mines should not be worked again without this protection. They are served by three lines of railway, and the metal can be very easily extracted. A hundred years ago there were 2400 hands employed in these mines, and with a little intelligent enterprise they could be made quite as prosperous as they were then.

EXTENSION OF THE MAIN REEF.

MR. DRAPER'S REPLY.

The ordinary meeting of the S.A. Geological Society was held on May 11 in the Council Chamber of the Chamber of Mines.

Extension of the Main Reef to Klerksdorp.

Mr. Draper delivered his paper upon the Extension of the Main Reef to Klerksdorp, as follows: "On the connexion of the conglomerate beds of the Witwatersrand and those situated in the districts of Potchefstroom and Klerksdorp," with map and section. In my paper entitled "The extension of the Main Reef westward of the farm Witpoorje," read before this Society on the 10th February, I traced the continuation of the series of sandstones, quartzites, and conglomerates to a position on the farms Elandsfontein and Oog van Wonderfontein, where they terminated against the granitic dyke, which is apparently connected with a greater mass of granite outcropping on the farms Wildfontein and De Pan (see sketch map facing page 14 Transactions G.S.S.A., Vol. 2, Part 1, 1896). I intend to place before the meeting this evening the result of my investigations on the area westward of this dyke, and extending to the Vaal River south of Klerksdorp. I have been over the greater portion of the country which I am describing this evening, and, though neither time or space will allow me to deal minutely with its geology, I will place before you the broad lines which show its connexion with the area dealt with in my former paper, to which I must refer you for the general succession of the country dealt with (see page 6, Translation G.S.S.A., Vol. 2, Part 1). On the western side of the granitic dyke previously mentioned, the dolomitic limestone, which on the eastern side of the dyke terminates on the south-western corner of Elandsfontein No. 494, extends for a distance of about three miles northward to the southern portion of the farm Wildfontein, where it lies in close proximity to the granite boss, shown in accompanying map as occupying a large area on the farms Wildfontein and De Pan. The extension of the dolomite so far northward on the western side of the dyke is distinct evidence of the existence of a fault accompanied by a displacement of the strata, and, as additional evidence, the dolomite on the east side of the dyke is tilted to a much steeper angle than on its western side. Along the northern boundary of the dolomite, for a distance of about eight miles, there is an outcrop of quartzite with conglomerate beds, the uppermost of which bears a close resemblance to the Black Reef series, and on the crest of the ridge running east and west, through about the middle of the farm Boschpan and Leeuwpan, there is an exposed area of sandstones and conglomerates, which resemble the older beds of the Witwatersrand; these dip to the southward. On the north slope of the ridge, quartzites and conglomerates, similar to the Black Reef, and overlaid by dolomite, outcrop for a considerable distance, and dip to the north. This northern dip of the Black Reef can be traced almost continuously, overlaid occasionally by surface deposits only, from this point eastward and northward to Kromdraai. This outcrop of older sandstones, accompanied by the north and south dip of the Black reef, terminates near the eastern boundary of the farm Boschpan, where dolomite is the only rock visible on the surface, with the exception of a few small hillocks of Black Reef quartzite, which have been exposed by the weathering away of the dolomite. I have always contended that the dolomite of the Six-Mile Spruit, north of Johannesburg, and that of the Klip River, south of Johannesburg, were portions of the same bed; but until I examined the farm Rooipan I had no definite proof of the correctness of this theory. There, however, there can be no doubt on the subject, the dolomite being absolutely continuous from the north base of the Gatsrand, about eight miles southward; to the south base of the Rietfontein Hills (which contain the lower beds of the Magaliesberg) six miles to the north; and if the line of dolomite from the Six-Mile Spruit is followed, it connects with this comparatively horizontal sheet of the same rock on Rooipan, which again in its turn is connected with that at Klip River. Below this dolomite, on the north, lies the Kromdraai series of quartzites and conglomerates. Underlying it on the south is the well-known Black Reef, and I submit to your consideration the fact that on this farm Rooipan these two are distinctly connected beneath this sheet of dolomite, and from underneath which they emerge again, exposed by surface denudation on the farms Klerkskraal and Varkenkraal, separating again on the western boundary of these farms, the northern line continuing through the farms Wolverfontein, Cyferfontein, Uitkyk, Modderfontein, Palmietfontein, and on beyond the town of Ventersdorp. Along this line the reef lies almost directly upon granite, which outcrops distinctly in the course of the Mooiriver, on Klerkskraal, and again on Cyferfontein. The southern line of Black Reef curves gradually to the southward, dipping generally to the east, and passes through the farms Rooival, Rondheuvel, Witkopjes, Rooidraai, Rietvlei, Muiskraal, Du Toit's Laagte, Cyferkuil, Welgegund, Kromdraai, Rietkuil, Eleazar, Rietfontein, Stilfontein, the Klerksdorp Commonage, Nooitgedacht, and Witkop, crossing the Vaal River, where it is lost under the more recent coal formation in the Orange Free State; and throughout the whole of this area it lies unconformably upon a series of quartzites containing conglomerate beds, which bear a distinct resemblance to the series at the Witwatersrand. The whole distance traversed by this line of Black Reef lies at a very flat angle, and, consequently, as the ground slopes in the same direction as the reef is dipping, this reef will be found at a shallow depth for a very great distance from its outcrop; and on such farms as Rooipan, Welverdient, and Varkenkraal, it would lie at a workable depth over almost their entire area. Dolomite continues covering both the northern and southern lines so far as they have been traced. I have stated that granite underlies the northern line of Black Reef outcrop, and in all the shafts made on the northern portion of the farm Rooipan, granite has been touched at a shallow depth, and the following succession of rocks has been passed through in these workings: Dolomite, Black Reef quartzite, thin layer of conglomerate similar to Black Reef, yellow arenaceous shale similar to that found lying under he Black Reef under its southern dip, granite; whereas workings on the south slope towards the Gatsrand, after passing through dolomite and the Black Reef series, have terminated in coarse, gritty sandstones, dipping at an angle of about 30 degrees to the southward, and on the farm Modderfontein, No. 222, quartzites and conglomerates crop up resting upon granite; a short distance further south-westward, a distinct line of Hospital Hill slate continues through the farms Witrandsfontein, Kaalfontein, Rooikop, Tweelingsfontein, Bulskop, Witrandsfontein, Doornfontein, in the position shown in the accompanying sketch. Further on, on the farms Witkop and Rietkuil, there are also distinct outcrops of this easily recognisable slate. The general dip is to the south-east, and patches of granite are visible lying in the same position with regard to this Hospital Hill slate that it occupies to the north of Johannesburg at about the same distance; and conglomerate beds run parallel to it in a similar position to what they do in the last mentioned area. Some of these beds, especially those on the farm Witjesrandfontein, bear a close resemblance to the Bird and Kimberley series on the Witwatersrand, and they lie at about the same distance from the Hospital Hill slate; and on the farm Rietkuil, in the Klerksdorp district, the main reef series has been identified for a number of years. Near the outcrop of the Black Reef, and underlying it, a series of conglomerate beds have been worked for gold since the discovery of gold in conglomerate. The best known working on this line is the Gold Estates on the Klerksdorp commonage, and the companies working on the farm Buffelsdoorn. The line of reef is recognised as the continuation of the Elsburg series. It lies in a similar position with regard to other portions of the series, is overlaid generally by a sheet of amygdaloidal diabase, consists of large pebbles generally, and these resemble closely those of which the Elsburg series is composed. The whole series of conglomerates have been very much disturbed, and numerous synclines and anticlines have been formed. A section along the line E-F, shows the position of the beds across the Gold Estates and Rietkuil. There is consequently much faulting and disturbance of the strata, and in some parts, as at Leeuwfontein, distinct crumpling on the line of strike is clearly visible. Igneous rocks occur as sheets of amygdaloidal diabase, of which that overlying the Gold Estates Reef is the most extensive; dykes, such as that on Goedgevonden; areas of igneous fault rock, by which I mean an igneous rock containing fragments detached from the sedimentary strata through which it has travelled, are numerous; and westward of the Buffelsdoorn Company's ground there is a hill composed of volcanic ash and amygdaloidal diabase, which indicates igneous action at a much more recent date than is generally supposed. Conspicuous along the course of the Buffelsdoorn line, and extending north-eastward through the farms Rooipoort, Leeuwfontein, Lapdoorns, and Cyferkuil, is a large outcrop of ferruginous slate which in places closely resembles the well-known Hospital Hill slate. This very prominent feature in the area I am now dealing with is equally conspicuous in area C of my former paper, and this outcrop of ferruginous slates I think has been mistaken in some cases for the true Hospital Hill slate. I can imagine anyone suddenly coming across this line of ferruginous slates accompanying the Buffelsdoorn lines jumping to the conclusion that it was the true Hospital Hill slate, but a section across the formation would soon dispel this idea, for he would find in the position shown on the map attached the true line of Hospital Hill slate lying in the same position with regard to the granite which it does on the Witwatersrand area. In concluding this paper, I beg to call the attention of this meeting to the following points, for its consideration:—

Firstly.—That the Black Reef continues from the Klip River to the Vaal, along the line I have traced it, displaced only at the fault on the farm Oog van Wonderfontein.

Secondly.—That the northern dip at the Black Reef, known otherwise as the Kromdraai line, is connected on the farm Rooipan with the south dip, or true Black Reef line, and that consequently these are two portions of one and the same bed.

Thirdly.—That the elder series of sandstone and quartzites which outcrop on the southern portion of the farm Modderfontein, and continue across the Vaal River, are the western continuation of the Witwatersrand beds, and that these consequently pass underneath the dolomitic limestone north of Wonderfontein, and are disconnected by the granite dyke on the farm Oog van Wonderfontein.

Fourthly.—That the Elsburg series at Johannesburg and the Gold Estates and Buffelsdoorn line of reefs are continuations of the same beds. These points being granted, I do not quite see how any arguments can be held against the theory laid down in my original paper, that the Main Reef should be sought for along the line indicated in my map attached to that paper, and that the Randfontein Reefs are the continuation of the Elsburg Series. There is only one feature wanting in the Johannesburg area to prove conclusively that a section across Johannesburg, Krugersdorp, Elandsfontein, or the section shown on line C-D accompanying this paper, are similar in every detail, and that is the absence of a red ferruginous slate immediately underlying the Elsburg series. If we could find this slate in the position just mentioned, I am sure that all opposition to my theory would cease. Personally, I do not see that the absence of this particular bed is of such very great consequence; at the same time, it may be there, though perhaps it has thinned out considerably, and is consequently not so easily detected.

The conclusion of the paper was received with considerable applause.

The Chairman said that the discussion on the paper would take place at the next meeting of the Society. He had now to call for Mr. Stonestreet's paper.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ALASKA MEXICAN.—Cablegram from Alaska reports the clean-up for the month of May as follows:—"Period since last return, 31 days; bullion shipment, $17,059; ore milled, 7201 tons; sulphurets treated, 135 tons; of bullion there came from sulphurets, $5796; working expenses for period, $12,480."

ASSOCIATED SOUTHERN GOLD MINES (W.A.)—The manager in charge of the Trafalgar lease, belonging to this company, cables (date of June 12) as follows:—"Struck another lode, comprised of quartz and formation. Average width of lode is 6 feet, carrying good gold. Develelopments promise well."

ALEXANDRA ESTATE.—The following cablegram has been received from the head office, dated Johannesburg, June 13:—"It is reported valuable reef struck; contradict the report immediately; cannot trace source of report."

AURORA WEST UNITED.—For week ending May 22, 84 feet were developed during same period 84½ tons of ore were hauled. Pumps and machinery are in good working order. Average assays for week gave 16 dwts.

BRITISH COOLGARDIE.—The secretary informs us that he has received a cablegram from Coolgardie, advising him of the safe arrival of Mr. W. H. Trewartha James, the company's expert representative in the colony.

BLACK FLAG PROPRIETARY.—The latest advices from from Coolgardie are to the effect that the machinery is at the mines, and is now in course of erection. It is anticipated this will be completed on or before September 1, when crushing will be at once proceeded with. The property is still being developed with a view to providing a continuous supply of ore for the 50 stamp mill so that regular crushing returns may be made.

BROKEN HILL PROPRIETARY.—Cable from Melbourne, dated June 18:—"Shares £2 8s. 6d."

CHAFFERS.—Cablegram from the mine managers, dated June 15, in response to one despatched by the directors for news of latest developments on the property:—"In reference to your cable of the 12th inst., there is no change to report. People are buying on account of the position."

CHAMPION REEF.—The following telegram, dated June 16, has been received from the superintendent:—"Owing to the prevailing sickness we have a difficulty in getting labour. Am afraid that may have some effect on returns. The sickness has abated."

DAY DAWN BLOCK AND WYNDHAM.—Cablegram from the general manager at Charters Towers gives the result of the crushing for the fortnight ending the 13th inst.:—"Tons crushed, 1090; yield of gold, 1160 ounces; approximate value, £4000; fortnight's expenses, £1900."

DUNDERBERG.—The following cable has been received from the manager:—"Winze down 6 feet, ore therefrom assays gold 2 ounces per ton, silver 60 to 65 ounces per ton."

DARIEN.—The directors have just received the following cablegram from their manager at the mines:—"Crushed 500 tons, obtained 710 ounces of gold."

FREDERICK THE GREAT.—The following cable has been received from the manager at Bendigo:—"Have cleaned up after crushing 450 tons of quartz, gross yield 77 ounces; disappointed. We think returns likely to improve."

FRONTINO AND BOLIVIA.—The statement for the month of April is as follows:—Estimated value of gold and sulphurets, £7765 2s. 7d.; estimated cost, £5158 2s. 2d.; estimated profit, £2607 0s. 5d.

FRONTINO AND BOLIVIA.—The directors have received a cablegram from the mines by which they learn that the estimated profit for the month of May was £1008.

GREAT BOULDER MAIN REEF.—The following cable has been received from Mr. C. C. Macklin, the company's agent at Perth, dated June 17:—"Varden reports that two Ivanhoe lodes, near the boundary of Golden Horseshoe, continue direct to Boulder Main Reef shaft.—Machlin." The following cable was received yesterday from Mr. C. C. Macklin, the company's agent at Perth:—"Start crushing June 18. Have concluded contract Leviathan to crush 3000 tons continuously."

GELDENHUIS MAIN REEF.—Result of May crushing: 2440 tons crushed, yielding 727 ounces of gold; 1610 tons treated by cyanide, yielding 487 ounces of gold; total, 1214 ounces; loss for the month £95. This result being due to an accident to the boiler and shortage of fuel.

GLADIATORS (Limited).—Professor William Nicholas cabled June 15 as follows:—"There are two reefs in the property, which is 3100 feet long. 11 shafts have been sunk to depths varying from 30 to 87 feet. One reef has been proved for 1000 feet to average 11 feet in thickness. Ore in sight is estimated to be worth not less than £40,000 in five gold shoots, met with in the proved 1000 feet. No ore stoped. Ore can be cheaply mined and milled. Main shaft is down 80 feet. 'Gladiators is one of the richest gold mines in the district of Coolgardie.'"—(Note by the secretary of the company.) The above cable is in answer to one asking for particulars of the recent developments at the mine. The main shaft referred to was begun about the middle of April, on a site specially selected by Professor Nicholas, who had previously reported that the main reef runs through the whole length of the property. The railway to Menzies will pass near these mines.

GREAT EASTERN COLLIERIES.—Cable dated June 15:—"The output of coal for the month of May, 13,200 tons. Profit for month, £1500."

GELDENHUIS ESTATE AND GOLD.—Copy of cablegram received from head office, Johannesburg: "Last month's (May) profit was £2800."

HANNAN'S "SIR JOHN FORREST."—The following cable information is to hand from Mr. J. Woolcock, the mining manager:—"Since last report the main shaft has been sunk 7 feet, total from surface 147 feet; rock very hard. The eastern crosscut has been advanced 12 feet, total from shaft 62 feet. At No. 2 shaft have driven (south) 17 feet on the lode, total 102 feet. The lode is opening up well, and carries gold in payable quantities. Have driven north 15 feet further, total 30 feet. No. 3 shaft has been sunk a further 10 feet, total from surface 76 feet."

HANNAN'S REWARD.—Copy of a cable received from the manager:—"No. 2 level, lode 5 feet; No. 3 level, lode 8 feet. Pyrites 20 per cent., assaying 26 dwts. per ton to 5 ounces per ton. There are 6500 gallons of water in the 24 hours."

HERBERT.—The following cable has been received from the managing director at Coolgardie:—"In the main shaft everything completely finished. Have started to crosscut for reef at 60 feet level." From this it appears that the contract for sinking the main shaft to a depth of 100 feet has been satisfactorily completed.

ISLE OF MAN.—The secretary has sold 100 tons of this Mmpany's ore at £8 4s. per ton.

LE CHAMP D'OR FRENCH.—Crushing for the month of cosy. The following cable has been received from the manager on the mine at Johannesburg:—"During the month of May mill worked 27 days, crushed 6300 tons, yielding 3272 ounces; cyanide treatment 3700 tons, yielding 311 ounces; total, 3383 ounces."

LA YESCA GOLD AND SILVER.—The following cable has been received from the manager:—"Milled 35 tons; 710 ounces silver. Developed a fine body of ore, close to the footwall."

LIMERICK.—A cable, dated Coolgardie, June 13, from Mr. J. Lowles, M.P., director, states that the "mill will be ready to start in three weeks." (This refers to the crushing machinery, through which this company has the right to put 1500 tons of ore.)

LONDON AND WESTERN AUSTRALIAN INVESTMENT.—The company's agents at Cue advise the letting of a contract for extensive stabling, &c., in connection with the hotel at Cue. There is a good demand for the company's town lots at Menzies, which town is going ahead rapidly.

LEICESTER DIAMOND.—A cablegram from Kimberley gives the following particulars of last week's work: "2700 loads (from top ground) washed, producing 125 carats."

LEICESTER DIAMONDS.—A cable received to-day from Kimberley reports that a very good stone weighing 12 carats has been found. A find of this description in any other mine in the Kimberley district would not be worth cabling about, but owing to the very fine quality of the Leicester diamonds there is the probability of this stone being a very valuable find, possibly worth from £200 to £250; moreover, it is further proof that the finds of valuable diamonds in the Leicester Mine are not of the character of flukes, but are of regular occurrence.

MOUNT CHARLOTTE.—Manager's mail report, May 8, states—Northern block. The lode is coming into shaft more solid, and begins to look better. I have had a long visit from Baron Oldenrufenborg. He has a very high opinion of this great strong lode.

MENZIES PIONEERS.—Mine manager cables as follows:—"June 11. Main shaft. Sinking the shaft for water with the utmost dispatch. Depth of shaft 106 feet. Machinery arriving rapidly.—North-west shaft. Crosscut vein at 69 feet proved small. Length of crosscut is 86 feet. Promises exceedingly well."

MOSMAN GOLD.—Cablegram from Charters Towers:—"Have crushed 93 tons of quartz from Wyndham shaft for 56 ounces of gold and 87 tons from the Peabody shaft for 171 ounces. There is a great improvement in the Wyndham shaft formation, and quartz are coming in." The above return of 180 tons of quartz for 227 ounces of gold has an approximate value of £800.

MAY CONSOLIDATED.—The following cable message, dated Johannesburg, June 12, has been received at the office: "The profit for the past month (May) was £2888."

McKENZIE.—The following cablegram has been received from the consulting engineer, Mr. Frank Nicolas:—"Glenloth lease. The first crushing of 100 tons has yielded 150 ounces of gold, the tailings assaying 13 dwts., making the return 2 ounces 3 dwts. to the ton."

MOUNT CHARLOTTE.—The manager cables the result of testing machinery with low grade ore as follows:—"Crushed 34 tons, obtained 24 ounces of gold; gold from tailings assays 2 dwts. per ton."

MOUNT GREENOCK GOLD ESTATES.—The subjoined copy of cable is to hand from Mr. L. A. Samuels:—"Have made arrangements for immediate location of wash. Borings commenced."

MOODIES.—The result for last month is as follows:—Claims rented, 545; tons crushed, 1150; ounces obtained, 690.

NEW CHUM GOLD MINES.—The subjoined cable information is to hand from Mr. L. A. Samuels:—"Since last report main shaft has been sunk 10 feet, total from plat 67 feet, and from surface 619 feet. Sinking present lift now suspended, and am proceeding to open out to lode at 610 feet from surface. This will be known as No. 7 level."

NEW HERIOT.—Cable, dated June 15:—"Have declared a dividend of 25 per cent. payable to all shareholders registered on June 30. The warrants for this dividend may be expected to reach European shareholders at or about the end of August next."

NEW QUEEN.—The following cablegram has been received in answer to the directors' enquiry as to the thickness of reef in No. 5 formation:—"East. A reef 1 foot thick. Stope above 2 feet. Underlie shaft at the present time 1 foot. Crushing is looking pretty much the same."

NEW RIETFONTEIN ESTATE.—The Johannesburg Consolidated Investment Company announce receipt of a report from the above company containing the following:—For the week ending May 13, 94 feet were developed. The average assays for a reef width of 9 inches were 14 ounces 11 dwts. 3 grains.

NEW CHIMES.—The result of last month's crushing yielded 1746 ounces of gold.

PAHANG CORPORATION.—Returns for May:—Jeram Lumpong mill. In 19 days of 24 hours each 740 tons of stone were crushed producing 30 tons of black tin. 20 head of stamps running. Working costs, $9250.—Jeram Batang mill. In 23 days of 24 hours each 700 tons of stone were crushed producing 38 tons of black tin. 20 head of stamps running. Working costs, $7500. Lower output owing to scarcity of men for obtaining wood.

PICK O' THE FIELD.—The subjoined copy of cable is to hand from Mr. L. A. Samuels:—"Erection of machinery proceeding satisfactorily."

SAN MIGUEL SILVER MINES.—The following is a reply from the mines to a cable sent by the board of directors asking how the diswatering was progressing:—"Iquique, June 12. Referring to your cable of the 4th inst., the mine is now quite dry." Note.—The meaning of this is that they are now able to extract the celebrated rich Rosicler ore, for which this mine was famous before being flooded.

SAN SALVADOR SPANISH IRON ORE.—The s.s. *Mercator* sailed from Santander on the 17th inst. with a cargo of this company's ore for the Tyne.

SPITZKOP FARM.—The following cable has been received from the mine:—"Shipping, free of all charges, 283 ounces; hydraulic for April, May, June, value £1000; actual realised profit, £720."

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chalmers:—"Produce 10 days, 1st division June, 7750 oitavas, equal to 893 ounces troy; value £3003; yield per ton 4·3 oitavas (·50 ounces troy)."

SOUTH BENDIGO.—The subjoined cable information is to hand from Mr. L. A. Samuels, the manager:—"Since last report the main shaft has been sunk 24 feet, total from plat 64 feet, and from surface 856 feet. The crosscut east of drive at the 710 feet level has been extended 12 feet."

SOUTHERN NEW CHUM.—The following cable information is to hand from Mr. L. A. Samuels:—"Since last report main shaft has been sunk 24 feet, total from plat 64 feet, and from surface 224 feet."

SPITZKOP FARM.—The following information has been received from the mine:—The assays from the newly-discovered reef near the dyke give 1 ounce 5 dwts. 7 grains per ton.

VIOLET CONSOLIDATED.—The following cable has been received from the manager:—"Decided opinion have discovered a payable reef underlying battery."

WEST AUSTRALIAN VENTURE SYNDICATE.—The following information has been received by cable from Mr. C. C. Macklin:—"Telluride of gold discovered block 45 traverses Crœsus Consols."

WENTWORTH GOLD FIELDS PROPRIETARY.—The following cablegram has been received from the superintendent at the mines.—"Five weeks' return totals 844 ounces of gold (approximate value £3100)—namely, 820 tons of ore have been crushed, yielding 638 ounces; and 10 tons rich crude ore have been shipped, containing 206 ounces. The alterations at the Phœnix shaft have been completed."

WAIHI SILVERTON EXTENDED.—The following cable has been received from Auckland:—"During the month mill crushed 900 tons, yielded 650 ounces, value of £1622 low grade ore largely available of from the surface. Assay value of ore now being milled £3 10s."

WAIHI GRAND JUNCTION.—The manager cables June 12:—"Grand Junction engine shaft is down 300 feet. Waihi West prospecting shaft crosscut north is driven 285 feet; south 24 feet."

REPORTS FROM THE MINES.

BRITISH MINES.

LEADHILLS.—The following report has been received: W. H. Paull, June 15. Brown's vein. The 160 fathom level going north of Jeffrey's shaft continues to yield good stones of lead ore at times, but not good enough to value. Same level driving south of Wilson's shaft is without any improvement, vein soft and unproductive. In No. 2 winze sinking below the 145 fathom level north of Jeffrey's shaft the vein is 3 feet wide, now producing 10 cwts. of lead ore per fathom. In stope over the 160 north of Jeffrey's shaft the vein yields 30 cwts. of ore per fathom. In stope over same level south of said shaft vein will produce 20 cwts. of ore per fathom. The vein in stope above drift over same level north of Wilson's shaft is worth 35 cwts. of ore per fathom. The stops above the same south of Wilson's shaft will yield 70 cwts. of ore per fathom. A stope over the 115 fathom level north of Jeffrey's shaft is producing 25 cwts. of ore per fathom. In drift over the 115 fathom level south of No. 1 stope the vein looks more promising and contains good patches of lead ore. In drift over same level south of No. 2 stope vein yields 15 cwts. of ore per fathom. The vein in the 85 fathom level driving south of Wilson's shaft is 4 feet wide showing a little spar, but contains no ore. In rise over the 70 fathom level south of Wilson's shaft the vein is still unproductive. The stope above the 70 fathom leve south of Wilson's shaft is worth 60 cwts. of ore per fathom. A stope over the 50 fathom level south of Wilson's shaft will produce 45 cwts. of ore per fathom.—Brow vein. In the 100 fathom level driving west the vein is rather disordered by cross joints though well mixed with spar, showing good spots of lead ore, and very wet. In the 100 fathom level south of cross joint Raik vein is harder than of late, but no other change there. At the same level going north of crosscut the vein continues well mixed with spar, and at times yields good stones of lead ore, and slightly damp and of a promising appearance. No change of note elsewhere.

POLBERRO.—John Harper, June 13: I beg to inform you that the compressor has been erected, and the rock drill set to work to sink the engine shaft. The 50 fathom level is being driven by eight men. Yesterday a slide was met with in the end, which heaved the lode a little to the south. It will take three or four days to reach it again. In this district these slides often improve the character of the lodes, and I am expecting a great improvement in the value of our lode on intersecting it on the other side of this slide.

WEARDALE LEAD.—Report on Weardale Company's mines for the week ending June 13: Groverake. 60 fathom level east, sparry vein worth about the same for ore 6 cwts. per fathom. Tribute ore for the week 15 2-3 bings.—Boltsburn. Stopes in north flats from Watts' level worth 32, 34, 28, and 20 cwts. per fathom. Stopes in south flats worth 14, 20, 18, 28, 23, 16, 12, and 10 cwts. per fathom. Vein stopes worth 16 and 12 cwts. per fathom. Proving and raising ore in north flat below level the ground is worth 30 cwts. per fathom.—Greenlaws. Rose's drift vein looking better for ore, end worth 12 cwts. per fathom. Stopes worth 16 and 12 cwts. per fathom. Slatey hassel drift east strong vein a little divided, improved for ore, end worth 18 cwts. per fathom. Lowe's drift vein 4½ feet wide, chiefly composed of spar with a little ore, end worth 6 cwts. per fathom. Stopes worth 12 and 12 cwts. per fathom. Quarry level stopes worth 8 and 8 cwts. per fathom unchanged.—Sedjing. Driving 64 level east vein 4 feet wide, composed of rider and spar mixed with a little ore, end worth 8 cwts. per fathom. Stopes worth 12 and 8 cwts. per fathom. Stopes above 56 level worth 14, 16, 12, 10, and 10 cwts. per fathom. Ore raised for the week 56 tons, ore dressed for the week 66 tons, ore and slag smelted for the week 69 tons, producing 34 tons of pig lead.

COLONIAL, INDIAN, AND FOREIGN MINES.

BLAGROVES FREEHOLD.—The manager's report under date May 5: During the month the engine shaft was sunk 10½ feet. The men were employed a good deal of their time excavating ground for tank, and attending to the ordinary work of the shaft. Six men were employed about this work. The crosscut east from shaft was extended by six men a distance of 50 feet. The country during that time changed at intervals, for instance hard and soft bars alternately. Occasionally we encountered small seams of pug and patches of carbonate of lime. These seams are running at right angles to the drive. From present appearances we may expect a change in the character of the rock at any moment as there is more water oozing through the rock, which I consider a good indicator of the presence of the reef is not far distant. The smith was employed making new staples and glands for a set off to the main rod, lengthening bucket rod and other work as required. The carpenter has been engaged doing odd jobs, and at times assisting underground. The two surface men were employed assisting smith and carpenter, and trucking stuff from the crosscut. Machinery and pit work are working well.

DUNDERBERG.—Manager's report for fortnight ended June 1: The south drift has been extended 18 feet since my last, total 222 feet from the turntables. The ledge does not look quite so well in the end, especially in the back of the drift. The good ore has been continuous all along in the bottom of the drift. It is evident that we are skimming along on the top of the ore body. The upraise 150 feet south of the turntable has been advanced 12 feet, total 35 feet above the tunnel level; the ledge is considerably broken at this point. The oxidised ore shows free gold in paying quantities. The west crosscut has been advanced 20 feet, total 152 feet from the turntables. The country rock is strongly impregnated with iron pyrites. There are open crevices from 4 to 8 inches wide, inclining in the opposite direction from the ledge. We have found several detached pieces of sulphuret ore in these openings, which I cannot account for in any way excepting that it came from the overlaying vein through these open crevices. The station on the tunnel level for the hoist will be completed in a few days, when sinking will be commenced.—Mill. Grading the foundation is progressing satisfactorily. The mill which was recently purchased is now being hauled to the mine.

GIBRALTAR CONSOLIDATED.—Professor Schmeisser's opinion (translation), Sydney, April 13: In the Gibraltar Mine there is evidence of previous mining operations, from which can be seen that there are several parallel reefs running from north to south and others crossing these. But by the mining operations undertaken now, only the Gibraltar and Perkins reefs have been developed and can therefore be examined. On the dip of the Gibraltar reef is the Radcliff shaft, which is 350 deep, and on the dip of the Perkins reef the Perkins shaft, which is 250 feet deep. The Gibraltar reef has been driven on in the 120 feet level 250 north and about 115 feet south, and in the 250 feet level 150 feet north and 130 feet south. The Perkins reef has been driven on in the 170 feet level 1208 south and 80 feet north. The reefs are of varying width; 20 inches may be taken as the average, and they are generally well defined. It is probable that the reefs, in spite of occasional faults and depression, according to their appearance, go a considerable depth. The ore is composed of quartz with a considerable quantity of sulphur, also a lesser quantity of arsenic and copper together with zinc and lead. In the northern crosscuts of the 170 feet level of the Perkins shaft, and lower down, the reef is more of a quartzite formation, but considerably wider than in other parts. To prove the gold and silver contained in the ore I made several assays and found as follows:—1. In the Radcliff shaft in the first level, 1 ounce 4 dwts. 12 grains gold, 19 dwts. 19 grains silver. 2. In the 230 feet level 100 feet south of shaft, 7 ounces 5 dwts. 8 grains gold, 4 ounces 6 dwts. 13 grains silver. 3. In the first level of the Perkins shaft, 1 ounce 9 dwts. 9 grains of gold, 15 dwts. 8 grains silver. 4. In the Perkins crosscut 170 feet level, and south of shaft, in 15 inches wide quartz with much pyrites, 7 ounces 3 dwts. 17 grains gold, 3 ounces 2 dwts. 1 grain silver. 5. In the same place as No. 4 reef 3 feet 3 inches wide, but more quartzite formation, and in places much pyrites, 8 dwts. 4 grains gold, 8 dwts. 12 grains silver. 6. The dump of a small shaft of another property on the eastern boundary, the reef of which runs into the Gibraltar property, 5 ounces 14 dwts. 8 grains gold, 2 ounces 17 dwts. 4 grains silver. I do not think an average value of 3 ounces per ton of mineral to be too high. If in the 170 feet level of the Perkins shaft there were generally 1½ ounces, as per my assay, the wider reef would compensate for the lesser value. The reefs are enclosed in granite. At the present moment crosscuts are being driven east from the south and north of the 170 feet level on the Perkins shaft in order to cut the Chinaman reef. Further, a shaft is being sunk on the Gibraltar reef No. 2, which lies between the Gibraltar and Perkins reef. The reefs mentioned above are without doubt each of separate formation. Whether the remaining ones proved on the surface are of a separate formation or only off shoots, or how deep they go, still remains to be shown. Also one cannot be certain as yet whether the estimate of £2 10s. per ton for expenses is correct on account of the hard granite enclosure, the numerous necessary crosscuts, &c. The arrangements made for the further development and crushing of the ore are in my opinion good. I consider your Gibraltar property to be a valuable one.—(Signed) Schmeisser, Bergrath.

PESTARENA.—June 15: Ends. A slight improvement has taken place in the 33 east on No. 2, the lode now averaging 40 centimetres in width, while its estimated value is 4 tons of 1 ounce ore per fathom. The lode in the 46 east on Porzone lode is now 50 centimetres wide in roof, diminishing to 10 centimetres in foot, and is estimated to produce 3 tons of low grade ore per fathom. The 46 east on caunter continues to carry two small branches of ore on either wall, averaging 15 and 5 centimetres respectively, which are estimated to give 1½ tons of 1 ounce ore per fathom. In stoping forward the 46 east on No. 1, the lode has slightly decreased in width, but still averages 60 centimetres of quartz and pyrites, estimated to yield 6 tons of 2 ounces 19 dwts. ore per fathom.—Crosscuts. In the 33 north and 55 south there is nothing new to report. The 70 north has cut into a mass of quartzite, which makes progress somewhat slower, while the 99 south (Acquavita) is correspondingly easier for driving, a head of mountain having been intersected. Stopes continue to yield both in quantity and quality are as reported on the 5th inst.—Stabioli Mine. In the crosscut west from Morghen adit a sterile branch has been intersected having a strong dip west, the width of which cannot yet be ascertained, as the hanging wall has not yet been reached.—Kint concession. In the end west on Oro Secco lode the ore has diminished in quantity, the end now carrying a lode of quartz 1 metre in width, marking a little pyrites. The end east on Depaulis lode maintains its width, and is mixed with a little quartz and pyrites, but insufficient to value.—Quarazza winze. Work has been greatly impeded by inclement weather, and but little progress has been made in sinking.—Porzone pump. The water has risen a further 4·60 metres, owing to very heavy rains during the past 10 days, and is now at a depth of 23·60 metres from surface. All the machinery is working satisfactorily.—W. Henwood Trelease.

PREECE'S POINT.—The manager reports under date May 5:—Sinking engine shaft. During the month the shaft has been sunk 35 feet, making total depth from the surface 128 feet, and securely timbered the whole way. At a depth of 95 feet a joint was intersected, giving a considerable quantity of water, which has continued to increase steadily. This amount of water has diminished the rate of sinking. The country in the shaft has become much more solid, and requires a great deal of blasting. The character of the country rock is everything that can be desired, and I feel certain that when reefs are encountered in this class of country they will be auriferous.—Surface work. The building of the engine foundations is being done as rapidly as possible; the bricklayer, two labourers, and a boy being engaged on this work. The carpenters have been engaged bringing up stone for the loading in question. The heavy rains experienced during the month have necessitated the repairing of the road from the beach. Prospecting on the other portion of the property has been retarded somewhat on account of the bad weather. The road formation to the mine from the main road still remains unfinished, although the section leading to the mine itself is almost completed. The timber for the poppet legs has arrived, and is at present lying on the beach. They will be taken to the site as soon as possible and erected. They are four splendid spars, each 57 feet long. We expect the machinery to arrive shortly, when the erection of the same will be pushed ahead with every dispatch.

SHERLAW'S GOLD MINE.—Mr. Sherlaw reports to this company on May 13: As you were informed by cable, I have been negotiating with the managers of the adjoining properties with a view to obtaining a sufficient quantity of water to enable us to keep the mill running. Price quoted being out of the question, I have decided to have erected as soon as possible our air compressor (which ought to be here shortly), concentrate our labour, and go down for water, and I am confident that we will strike it eventually. We have ore in sight of the same quality (probably better) to keep the 10 head of stamps crushing for three years. The permanency of the mine is fully assured. We are now down in settled country, depth on underlay about 190 feet, the reef 3 feet wide, and carrying better gold than anything hitherto passed. Mr. Wilson, who has visited most of the principal mines in Western Australia, assures me that our machinery is undoubtedly the most complete, and the only automatic plant he has seen in the field. Our surface condenser is doing its work most satisfactorily. In fuel alone we have a saving of 50 per cent., and, as near as I can comput, a saving of 90 per cent. in water. With an adequate supply of water we would be able to mill at from 120 to 130 tons per week, and this would mean a very considerable profit indeed. As it is, however, I am well satisfied with the future prospects of the mine, and am determined to make it one of the best dividend-paying concerns on the field.

SUCCESS.—The manager reports under date May 7:—Eight men have extended the Big reef crosscut 68 feet during the month. The country rock passed through is very favourable for gold, total distance now covered is 337 feet. The present forebreast is strongly intermixed with silica matter. A shot today in the extreme end heaved out stones of quartz, which in all probability is the large reef cut through in James's level crosscut. The value of this reef will be proved after cutting through and assaying quartz.—James's No. 1 winze was sunk 24 feet for the month by six men, total distance now 33 feet. The reef carried prospects of gold. Owing to the large influx of water this winze is suspended pending the big level crosscut draining James's level. These men have now started to sink a winze further east, the plot for same being already cut.—Success No. 2 reef north of winze. On this reef the level has been extended 14 feet for the month. The average width of the reef is 16 inches of very congenial quartz, strongly oxidised with iron, and the mystery is that a reef of this description does not yield specimen ore.—Crosscut west from No. 2 reef (winze) has been driven 17 feet by two men, total length 21 feet, and intersected the intermediate reef about 9 inches wide, bearing 25° south of east underlying south-west 2 feet in a fathom. This vein prospects fine colours of gold, and in its development we expect discoveries of gold forthwith. The shallow level crosscut in the upper workings has also been re-timbered 163 feet. We hope to open up in the reefs opened out on from this crosscut blocks of ground that will pay well to put through our stamps. Several veins have been prospected carrying good dish prospects of good gold, which being in easy ground will pay for development. We are stoping on No. 2 Success reef southwards, and have stoped for the month 13 feet by 6 feet high. This is a trial stope in order to prove a small block of ground left by the old workers. So far nothing of importance has been met with. We have discharged 80 tons of coal at the Coromandel wharf for the Success battery. In conclusion, good progress is being made in the Big Reef crosscut. The reserves of ground is being got ready available as much as possible. The contractors are now building the battery house. The machinery is being landed and conveyed to the site. Everything is being pushed forwardas fast as possible.

ARROW PROPRIETARY (W.A.)—Mine manager's report for fortnight ending May 6: Foucher's shaft. In this shaft which is sunk 22 feet below the 100 feet level, the coming water is 1600 gallons of 24 hours (there is 14 feet of water in this shaft); the pump in Brookman's shaft will drain this.—Barrow's shaft. The crosscut east of Brookman's is advanced 42 feet, total distance from shaft 59 feet, or within 117 feet of this shaft, and hope soon to communicate these two points.—Surface operations. The opening is made at the top of Brookman's shaft for receiving the balance bob. The foundation for the two Cornish boilers is excavated, so also the ground from same to smoke stack. There is no natural fall for the stamps and dressing machinery, so that it necessitates the rising or building up of same to obtain the required height for the pitch of the battery boxes. Amalgamating and blanket tables, settling pits, &c., the foundation for these is being built up with long heavy logs, well packed in order to prevent shrinkage, &c. The foundation for the battery logs is taken out and the large sill timbers are being filled in the forest preparatory to their being sawn, &c. Every effort is being made to get every place and part ready for the reception of the machinery as soon as it arrives.—(Signed) William Hambly.

CAPE COPPER.—Captain Henwood, April 30; Ookiep. The stope in bottom of the 130 fathom level east of winze has not undergone any change to notice since last report. It is still yielding a little saving stuff. The rock in the 92 fathom level west of No. 2 sink has during the month produced a few stones of copper ore. The stope in the back of the 80 fathom level south-east and north-west of No. 16 level is yielding fully 2 tons of copper ore per fathom. The 68 fathom level south-east of 16 level is yielding rich stones of copper ore, but not to value. To prove the ground passed through in depth a winze has been commenced about 16 fathoms from the forebreast. The ground is yielding a little copper ore. This winze will communicate with the stope in the back of the intermediate level. The rock in the 58 fathom level south-west of 55 winze contains a few spots of copper ore. Nothing of value having been met in the 58 fathom crosscut north of main west level it has been suspended, and the men put to drive south from this point to prove the ground in that direction. The rock is easy for progress, and it also contains spots of copper ore. The stopes throughout the mine continue to yield well.—Trial Mines, Nababeep South. There is no material change to notice in the 59 fathom crosscut north of No. 1 winze, the rock is still spotted with copper ore, and the ground in bottom of No. 3 winze, sinking below the crosscut is disseminated throughout with purple copper ore.—Spectakel. The rock in the 53 fathom crosscut north on No. 1 flookan course is spotted throughout with copper ore, and the ground in the 53 fathom level east of No. 1 flookan course is also spotted with copper ore, at times in sufficient quantities to send to the dressing floors.—Copperberg. The 10 fathom level west of whim shaft is yielding occasional stones of copper ore. Nothing of value having been met in the 10 fathom crosscut south-west of whim shaft, it has been suspended. The ground in bottom of No. 3 trial shaft is spotted with copper ore, but not sufficient to value. The rock in the 30 fathom crosscut north of No. 1 trial shaft having become hard and unfavourable for copper, it has been suspended. The rock in the two 28 fathom crosscuts is composed chiefly of quartz.—Ookiep East. The stope in the bottom of the 63 fathom level south of winze is yielding large quantities of mineral for the smelting works. Returns for April, Ookiep, 2210 tons of 18 per cent.; Spectakel, 120 tons of 26 per cent.—Tilt Cove, East Mine. Output for April, 5540 tons of 3·70 per cent. wet assay.

CHAMPION REEF (Nannine, W.A.)—Report for fortnight ending May 10: Shaft D No. 1 level north extended 40 feet from shaft. Width of lode not disclosed; that portion extracted (size of drive) exhibits a most healthy appearance, showing gold while samples dollied give good prospects. Shaft F No. 1 drive south extended 10 feet towards G shaft, total length driven 40 feet. Width of lode average fully 6 feet dense quartz showing gold in excess of average quality.—Shaft G No. 1 drive north. This has been put out a total distance of 90 feet from shaft. Expect to communicate with shaft F in a few days. Reef large, size not known. Portion only being extracted in driving (say) 4 feet of the lode. Stone highly mineralised, pyrites, galena with occasional copper stains, the whole prospecting for gold in excess of any found in the surface cuttings. Distance between F and G shafts 150 feet, a superior block of auriferous lode stone.—Shaft O, Contra lode. Reef 2 feet 6 inches dense quartz of a superior character, very highly charged with iron pyrites, which on being pulverised and washed gives highly payable prospects of gold.

CHIAPAS.—Mining report for fortnight ending April 30:—Providencia Aver crosscut east No. 1 driven 6 feet, total 334 feet 6 inches. The wollastonite has risen to the back of the level, leaving the greater portion of the drift in quartzose rock. San Juan winze sunk 6 feet, total 29 feet. Not quite as good as when last reported. Assay, gold 2 dwts. 12 grains; silver 5 ounces 17 dwts.; copper 2·50 per cent. Francisco adit drift north-west driven 8 total, total 48 feet. Still continues fair, showing occasionally rich pockets of ore. Assay, gold 2 dwts; silver 5 ounces 2 dwts. 12 grains; copper 2·90 per cent. Looks better than it assays. Sylva crosscut No. 2 driven 2 feet 8 inches, total 111 feet. No change. Francisco rise risen 12 feet, total 30 feet. Poorer than usual. Communicated with San Jose Juan winze. Assay, gold 1 dwt.; silver 2 ounces; copper 1·10 per cent. Taylor deep adit driven 9 feet, total 94 feet. In firm ground; level secure; air pipes in place are in position to use rock drill. Pine Creek No. 1 driven 3 feet, total 30 feet, in quartzose wollastonite. San Juan extension rise risen 6 feet, total 64 feet. Poorer, apparently nearing top of deposit. Assay, gold 7 dwts.; silver 6 ounces 10 dwts.; copper 3 90 per cent. Santa Fe hill drift No. 3 driven 3 feet 6 inches, total 197 feet No change. Francisco adit drift south-east driven 8 feet, total 8 feet. Ore deposit taking circular turn, similar to San Juan above, leaving us too much in hanging wall. Assay, gold 1 dwt. 12 grains; silver 4 ounces 1 dwts. 12 grains; copper 1·90 per cent.—Extraction:—Old Providencia. Extracted 157 tons of fair ore. Assaying, gold 14 dwts. 12 grains; silver 8 ounces 2 dwts. 12 grains; copper 5·75 per cent. Santa Fe stopes sent 18 tons of average ore to the mill.—San Juan stopes and drifts. Extracted 189 tons. North stope improved, south stope nearing top of deposit. Assay of San Juan stopes, gold 3 dwts. 12 grains; silver 4 ounces 13 dwts.; copper 2·70 per cent.—Francisco adit and drifts. Extracted 207 tons. Quality of ore fallen off a little. We have started to cut a station for a winze in the Aver tunnel, where the grey copper ore was found.

CENTRAL BOULDER (W.A.)—Mine manager's report for fortnight ended May 7. Main shaft sunk a further 8 feet thus making a total from brace of 100 feet. Since last report the rock has become much harder, having now changed into the hard blue rock, locally termed "diorite." Up to the present there has been no indications of this giving place to more favourable ground, I have found it necessary to put the contractors on day work to complete the shaft. Had I not done so they would have thrown up the contract as the price per foot they were receiving would not pay for explosives, this would have caused considerable delay, and it would have been no advantage to the company.—No. 1 shaft north drive. The contractor who took this drive at 15s. per foot found he had misjudged the class of dirt he had to break, and so refused to continue. I have since relet the same drive at 20s. per foot to a good party of miners. Since starting they have driven 20 feet, which makes a total from shaft of 37 feet. The lode formation maintains its average quality and width.

CHAMPION REEF (Nannine, W.A.)—The resident manager's report: Developments during the week have been very successful.—North outcrop. The lode so far has yielded ore very rich, 2 ounces 10 dwts. per ton 15 ounces 10 dwts. per ton. South drive D and A shafts has placed in our possession a large body of ore payable.

CLYDE.—The following is an extract from a report recently received from the manager at the mine:—I beg to report as follows for the week: The crosscut at the Clyde is now in 30 feet, the material is gold bearing throughout, and averages from 3 dwts. up to 2 and 3 ounces per ton. The gold is contained in iron pyrites, some of the stone being very highly mineralised, which would make very valuable concentrates. In gathering samples of stone from the Bobby Burns, we have come across some very good ore, showing visible gold. I am of opinion when we commence to work these to produce ore for the mill that we shall make rich finds from time to time, as rich as any previously made. I am pleased to say the whole of the machinery already sent out is now on trucks, and on its way to Coolgardie. I expect its arrival almost every hour. The mechanical engineer has been down there looking after it and seeing to its being loaded up. I intend taking a trip over for a day to purchase plant and tools for erecting, also timber, as at the present time nothing can be got in Coolgardie. The great rush is to get up material that is now lying at Freemantle, so that at the present time there is a greater scarcity of ordinary material than before the railway was through. I beg to confirm the following telegram:—Coolgardie, April 26: Crosscut has been driven 25 feet. The gold lies in iron pyrites. Discovered a rich ore Bobby Burns (shaft). The machinery has been sent; it is not expected to arrive before to-morrow. Referring to your enquiry as to the rich strike made to the south of Bayley's No. 1, this strike was made on the Rose Hill leases to the south of the Clyde, numbered on the latest plan: 1932, 228, 509, 1599, 603. I had often expressed the opinion that the continuation of the Clyde and United Gold Reefs main lode would go through these properties. After our recent developments on the Clyde and United Gold Reefs, they set to work to discover this lode and found it, tracing it for a distance of several hundred yards by means of costean pits, and were fortunate enough at one sinking, about 90 feet in depth, to find very rich gold, being coarse and plentiful. In the local papers, if I remember right, it was mentioned that this new strike was a continuation of the Clyde Main reef. The course of it is sinuous, but the general direction is a few degrees north-west and south-east, but it is satisfactory to know that our neighbours are finding good ore, being evidence that the Clyde Mine is not a simple patch, but a part of one great reef. I may say the Great Coolgardie to the north have struck some very rich ore, which no doubt you have heard accounts of, as the dealings in shares in the local market after the find were very sensational, and the shares went from 1s. 6d. to 22s. in two days. The reef in this mine is an exact counterpart of the Clyde and United Reefs at the 100 feet level. In the Great Coolgardie the reef is about 30 feet wide, the material carrying the gold being of infinite variety. This shows that the rich gold-bearing stone does not lie in one locality, but is continuous, and rich patches may be struck at any time.

FRONTINO AND BOLIVIA.—Reports on the mines, La Salada, April 25: I beg to submit the following report on Silencio Mine:—The past month has been rather trying owing to the continued scarcity of water. The main shaft and bottom level north and south have been under water all the month, consequently they have not been touched, but I am glad to say that with the rain that has fallen during the past few days we have been enabled to fork both the shaft and level, and we shall now start work again at these points after cleaning them up somewhat. This stoppage of the bottom workings is rather serious, as it is impossible to keep the exploratory work ahead of the extraction, as we should wish to do always. However, should the rain continue we may now hope for better returns from the mills. It has been deemed advisable to suspend work in the No. 5 end north, the formation having almost entirely given out, and the ground being exceedingly hard. We now propose to put up a rise, a fathom or two back from the present end, at a point where the formation is of fair size, with a view of ascertaining our position relatively with the level above (No. 4 level north), that is to say, to prove if we are driving on the same formation, the lode at this point being terribly split up and disorganised. In the south ends, with the exception of No. 6, we have a well formed lode, and of good size. I have also suspended work in the Bolivia crosscut south, as in the event of cutting the lode, after a considerable amount of hard ground had been driven through, it would not be possible to work it owing to water and want of ventilation. This difficulty also applies to the crosscut north, which, however, I apparently very close to the lode, if not already in it. If this lode is to be worked, a shaft must be sunk on it from surface, otherwise we shall not be able to work it to any extent. This is a matter for after consideration, and for the present I do not think it advisable to continue the drivage of this work either north or south, for it is more than likely after cutting well into the lode, we should have to contend with a considerable quantity of water; and if preparations are not made for dealing with this increase of water we might drown the entire mine, and I do not deem it prudent to run such a risk. I think you will agree with me that such an important work is best left alone for the present. At Maria Dama the work of changing the timbers proceeds little by little as the wood is brought in. Some of the largest have already been replaced. The wheel at the No. 2 mill, which is the larger of the two native mills, is in a bad state. This will also have to be repaired, the timber for same being on order. At the Salto the arrastres have hardly worked at all during the month owing to the lack of water. At the present moment there are two working. All the other work progresses as usual.—(Signed) William Truran.—La Salada, April 25. I beg to hand you my report on the following mines:—La Salada. The lode in No. 3 level north has improved, it being now 2¼ feet wide of good milling ore. The rise in back of this level is holed to No. 2 level. This has opened up a large section of good ground for stoping, and given good ventilation to the bottom of the mine. In No. 3 level south the lode is pinched for the time, but we expect this to be only temporary. The lode in No. 2 level north is 2 feet wide of good ore, but it does not contain so much pyrites as formerly. The lode in No. 2 level south is 3 feet wide of good ore. In No. 2 rise in back of this level the lode has improved and is larger, being 6 feet wide of good mineral. There are four stopes being worked in back of No. 2 levels, the average width of the lode in these is 4 feet of good quality ore. In No. 1 level south we are driving on the San Joaquin lode, which is about 20 inches wide of good ore. This lode is about 6 feet to the east of the Flat lode, which is 4 feet wide of good milling ore.—These lodes being so far apart, we shall have to drive a level on each of them, but for the present it is intended to drive on the San Joaquin lode only. The lode in the rise in the back of the adit level is 7 feet wide of fair pay ore. We have suspended the drivages in the adit level south for the time being. It is, however, intended to restart them as soon as the rainy season settles in, and the new hoisting engine, skip-road, &c., are complete.—Cordoba. In the crosscut driving east of No. 3 level north we have intersected the lode, which is 2 feet wide of pay ore, composed of quartz, pyrites, and decomposed granite, altogether a very promising lode. We shall drive north and south on this. In this level south there is no change to report, the ground continues hard and progress slow.—Tigrito. The lode in No. 6 east level is 18 inches wide of low grade ore. In this level west the lode is 2 feet wide, producing a better quality ore. Two stopes are being worked in the back of this level, in which the average width of the lode is 2¼ feet wide of good pay ore. No. 4 rise in back of this level is now commenced in a lode about 20 inches wide of good quality ore, and a stope east of No. 1 rise in the eastern level, where the lode is 3 feet wide of pay ore.—Marmajon and Marmajito. In the level driving east of the Marmajon east crosscut the lode is mixed up with country rock, at present of little value, but promising. In the Playa crosscut the ground is a little harder for driving, during the past few days there has been a little water coming from the forebreast. The lode in the No. 2 level east is 1 foot wide, of good milling ore. The lode in No. 2 rise in back of this level is pinched for the time, it being about 6 inches of wide pay ore. In this level west the lode is 2¼ feet wide of good milling ore. Three stopes are being worked in back of these levels, giving an average width of 2 feet of good milling ore. In No. 1 level west the lode is 2 feet wide of good milling ore.—Surface operations. At La Salada the new hoisting engine and the small engine for working the dynamo, circular saw, and machinery in the fitting shop, are completed and working. We shall now proceed with the fixing of the lathes, plane, &c., in the new house erected for the purpose, and which is under the same roof as the engines and boiler. The old derrick on La Salada shaft is taken down, and the mule hoisting gear is no longer in use, the temporary derrick is fixed, and we are now hoisting with the new engine with kibbles. The new permanent derrick, skip-road, &c., will be proceeded with as fast as we can get the timbers on the mine. At Cordoba the tram road connecting this and Tigrito Mine and mills is finished, so that we shall now keep these mills working on mineral, which is expected to pay the cost of these mines and perhaps leave a little profit. We, however, expect to do something better, when we have opened the mineral ground up between No. 7 and 8 levels in Cordoba Mine.—Mills. During the past 14 days we have had several good showers of rain which have helped a great deal, and more stamps have been working, giving increased returns. The stamps now at work are as follows:—Salada Mine, old mill, 8 heads; Salada Californian, 20 heads; Cordoba, 16 heads; Tigrito, 12 heads; Marmajon and Marmajito, 21 heads; total, 77 heads.—Alfred F. Seccombe.—La Salada, May 10: I beg to hand you the following report on Silencio Mine. In the main shaft sinking has progressed without interruption, and we have now only a few feet more to sink previous to starting the new crosscut (No. 8). In the No. 7 level south the lode has become pinched within the last few days. The new rise, started from the No. 5 level north, up to now, is in a fairly well formed lode, rather better than when started. During the past week the No. 4 level south, also No. 3 south, have both fallen off, the lode having become very much pinched up. At Maria Dama, on the 3rd inst., a slight breakage occurred, owing to two of the timbers which support the house of the new wheel and the launders bringing water to it, having become rotten. Fortunately, we had a piece of timber on hand, with which we were able to replace the more rotten of the two, the other was temporarily secured pending the arrival of suitable timber. This work necessitated the stoppage of four batteries for six hours. Owing to a slight change for the better in the mineral, and a surplus of water, we have worked the No. 3 mill, and with fair results. We also found that the axle was suffering more by being idle than when working. The arrastres at El Salto have been working more regularly of late, owing to the arrival of the long expected rains, and to the consequent increase of power. There is nothing else of import to note.—William Truran.—La Salada, May 10. I beg to hand you my report on the following mines:—La Salada. The lode in the No. 3 level north has fallen off in size and quality, it being now 20 inches wide. In this level south the lode continues small and poor. The lode in No. 2 level north is divided into two branches, with about 20 inches of decomposed granite between them. It is, however, producing about the same quantity of mineral as before. In the No. 2 level south the lode continues about 3 feet wide, producing good milling ore. The lode in No. 2 rise in back of this level is smaller, it being only 4 feet of fair milling ore. The lode in No. 1 level south has improved, it being now 2 feet wide, and contains a good percentage of pyrites, altogether a fine, strong, masterly lode. The "Flat" lode is not being driven on for the present. There is no change to call for any remarks in the stopes; they continue to give fair milling ore. The rise in back of the adit level is suspended for the time on account of the air being bad. It will, however, be re-started as soon as the present dull days are passed, when the air will again improve.—Cordoba. In the level driving south on the lode in No. 3 crosscut north there is no change, the lode continues 2 feet wide, and is producing good milling ore. In the crosscut in the south level there is no change to notice.—Tigrito. There is no change in either of the drivages in the No. 6 level since last report. The stope west of No. 3 rise has improved a little. No. 4 rise in back of this level is giving fair milling ore, the lode is 2 feet wide and well defined.—Marmajon and Marmajito. There is no change in the Marmajon east crosscut. In the Playa crosscut the water is coming from between the hard and soft granite; the drivage will soon be in hard solid granite. The lode in the No. 2 level east is 16 inches wide, and judging from appearances, it will improve in size and value. There is no change in No. 2 rise. In back of this level the lode is small and poor. In No. 2 level west the lode continues good, is 2¼ feet wide. The ground, however, is very soft and wet, which makes it rather troublesome for the men to drive. In No. 1 level west the lode is 2 feet wide, of good mineral. There is no change in the stopes to call for any remark.—Surface operations. At La Salada good progress is being made in the fixing of the machinery in the machine shop, as well as with the work in connection with the derrick and skip-road, &c., for the main shaft.—Mills. Some repairs have been done to the San Esteban mill, and to the mills at Marmajito; they are again working and doing fairly well. We shall not, however, be able to keep the San Esteban mill working on mineral, until the skip-road, &c., is completed. Cordoba mill is now working on mineral which is supplied in part from No. 8 level, the rest is from Tigrito mine.—Alfred F. Seccombe.

GOLDEN DOVE.—The following is an extract of a letter received from the manager dated May 19: The work is progressing favourably. The mine all round is looking well, especially Scott's shaft No. 1. Both from this shaft and No. 2 we are getting the same rock as in the drive. The Dove is also looking (the amalgamator) is busy getting the plates cleaned and silvered. I hope to grand but showing lots of pyrites. Scott's in the drive is showing just about the same. The tables are being fixed and Mr. Bond get started by the beginning of June, but with the delay over the pump gear it is really not a certainty. I am pushing the work to its utmost, the men are working both Saturday afternoon and Sundays.

GLENROCK CONSOLIDATED.—Mr. W. H. Tinney, M.E., M.I.M.M., reports under date Coolgardie, May 12, regarding the 24 acre block now being worked by this company: La Marguerite. During the past month considerable work has been done on this lease. We have worked day and night shifts for three weeks. No. 1 shaft has been sunk 45 feet through ground of increasing hardness, total depth from surface 85 feet. At a depth of 80 feet a crosscut was driven north 32 feet, passing through a ferrugineous formation cutting into a thin seam of quartz and then through 14 feet of massive kaolin. The reef has been cut into a width of 4½ feet and drill holes in the end show 18 inches of quartz still ahead of us, making a total width of 6 feet. The quartz has distinctly improved in quality, it is finely laminated, and carries a good deal of iron. As to future plans—directly the Government lease is issued it will be forwarded to you with a plan of the property with a view to forming the subsidiary company. In the interval the work will be continued, so that the lease will be well developed, and we shall have a considerable quantity of quartz—not on paper—but actually in sight.—Mail advices from Mr. W. J. Stanford, Macetown, Otago, New Zealand, dated May 9, report as follows: Premier Mine. I am happy to say there is a marked improvement in the mine. The country in the incline has completely changed, and I have great hopes that I am at last going to pick up the chute again. We also passed through a vein carrying a little gold in the high level adit lately.—Sunrise Mine. The cleaning out and repairing of the tunnel is progressing a little better. If I can only get to the end of this tunnel and expose a gold bearing chute there, you ought to be able to float a subsidiary company.

GOLD REEFS OF WEST AFRICA.—The directors have the pleasure to inform shareholders that the company's principal lode—the Broomassie reef—has been intersected in the adit level or tunnel at a distance of 404 feet, and found in a highly payable condition. A number of tests of the ore met with at the point of intersection made by panning (which gives perhaps a better indication of what gold may be actually recovered in the mill than do fire assays) showed a yield of 1 to 1½ ounce of gold per ton. The manager, in reporting the foregoing results, states that the gold being coarse it was somewhat difficult to form a true estimate, but that they are probably below rather than above the mark. He immediately started to drive north and south on the lode with the view of opening up ore for milling purposes, and writing a month later he reported that in the north end the lode carried quartz running about 2 feet wide, of excellent quality, and judging by pan tests of a value of over 2 ounces of gold per ton. At the south end the lode had pinched, but he was continuing his drive in the expectation that it would again widen out. It is satisfactory to note, however, that the greater portion of the company's property lies to the north of the adit, so that the directors anticipate having a long run of rich ore in this direction. In a further letter from the mine, dated May 9, the manager confirms his previous estimate of the value of the lode, and shows that the width of the north drive is increasing. He writes: "The north drive remains very constant, averaging in width 2 feet 6 inches to 3 feet 3 inches. The quartz extracted varies very little in quality. I have a rough pan, and try samples every other day, and find the results show the ore to be high grade—probably rather over than under 2 ounces per ton. We have now, I estimate, about 80 tons of this stocked in the paddock. There is a great deal of visible gold." He stated that he had some difficulty with regard to native labour, but hoped to surmount it in the course of a few weeks. A good portion of the company's heavy machinery has been advanced up the river, and the agent at Axim, writing on May 16, believed he would be able to get the whole of it delivered on the property in the course of a few weeks, as the heavy rains were shortly due, and the river would then be in flood. In anticipation of this, a fitter from the works of Messrs. Robey and Co. (Limited) (the manufacturers of the milling plant), has been despatched to the mine, specially for its erection.

HERBERT.—The *Coolgardie Miner* for May 9, has the following on this company's property: The Herbert Gold Mine, 3½ miles north of Coolgardie, and on the range west of the well known Jolly Britons, is the latest addition to the list of successful mines. The prospects of this company, which is the property of a London syndicate, have for some time been of a very favourable character, but they are now breaking out stone of more than ordinary richness, and some really good specimens were sent away yesterday to London.

BARBERTON GOLD FIELDS SOUTH.—The following report, dated May 14, has been received from the manager of the mine:—South drive. The continuation of this drive has been pushed ahead all possible, and we are in a total distance of 35 feet. There is no change as yet, but every indication that the reef will soon be more regular and defined as we drive ahead. I have been obliged to take off the night shift from this point to more fully prove the new rich strike, therefore our progress has not been so much as it otherwise would have been.—Roof or back stope. This stope still yields good quantities, the reef averaging from 2 to 3 feet wide, and pannings from samples taken daily show it to be good pay rock.—New rich strike. As the quarts from this point has been showing a lot of visible gold and pannings from samples broken right across full width of reef—viz., 2 feet 6 inches, and finding it a rich and important point I have had all my available force of Kaffirs here sinking a new trial shaft and stoping north and south of same, and upon which I have made and hung a new windlass. Depth of trial shaft 7 feet, length of stoping 12 feet. The reef continues to hold on and pannings are excellent, and it appears as if there is still another rich leader behind the present footwall, this I shall prove more satisfactory to myself and give you full particulars in next report. The quartz being of a beautiful honeycombed and free nature is not particularly hard, and, therefore, does not require much dynamite in blasting out same, in fact every economy is being used at this and all other points in operation.—Trenching pits. In one of the several prospecting pits further north than present new strike, I have also obtained pannings from 4 to 5 dwts., and intend proving this point deeper, and fully expect it will prove richer as depth is attained, in which case a shaft will be sunk, and apart from other points referred to, a considerable quantity of ore will be opened up for milling.—Fire assays. So far, I am without the results of samples sent to Mr. Heller, but am fully persuaded, when completed, the results will be highly satisfactory to you. There is no doubt the Dick's Luck Mine is opening up exceedingly well.—General. I am giving the different points in operation all my attention, with which I hope you are perfectly satisfied.—Albert F. Hodge, manager.

TRUE BLUE (Hannan's).—Kalgoorlie.—Mining manager's report to May 12:—No. 1 main shaft. Contract has been let for sinking the shaft a further depth of 50 feet, and contractors commenced work.—North-east crosscut. This crosscut has been extended 54 feet, total distance driven from shaft 222 feet. Small formation has been passed through in the end.—South drive, No. 1 lode. This drive has been extended 50 feet, total distance driven from crosscut 78 feet. For 20 feet in the drift the lode averaged 10 inches in thickness, and would yield about 2¼ ounces gold to the ton, one of the assays reaching as high as 9 ounces 14 dwts. 16 grains to the ton. For the last 20 feet of driving the lode has been small.—Shaft A. Ladders have been placed in position in the shaft and the south-west crosscut driven 20 feet.—Jubilee section, Jubilee shaft. The south-west crosscut has been extended 38 feet, total distance driven from shaft 153 feet. A vein 9 inches in thickness was passed through in the end.—Shaft B. The top section of the shaft has been timbered to make sinking safe, and the shaft sunk a further depth of 6 feet, making total depth from brace 63 feet.—Battery. We have cleaned up a crushing of 100 tons for the return of 58 ounces 15 dwts. 2 grains smelted gold, being an average of nearly 12 dwts. to the ton. The average assay of the tailings was 8 dwts. 6 grains to the ton.—General. A total depth of 188 feet of underground exploratory work has been done during the fortnight, and work is progressing satisfactorily in the different sections of the mine. I have engaged the mill for another crushing.

WEST BOULDER (W.A.)—Mine manager's report for fortnight ending May 9: Block 888, No. 1 shaft. Contractors have made fair headway with eastern crosscut (100 feet level) and have driven a distance of 29 feet for the fortnight, making a total distance of 94 feet from platt. The face on end is still in favourable looking soft country rock, otherwise there is no change of any importance. No. 3 shaft, crosscut west extended for a distance of 52 feet for the fortnight, making a total distance of 107 feet from shaft. Country passed through for the fortnight is precisely the same in character as has been passed through for the entire length of crosscut, with the exception of the last 2 feet or so in the face, which has been soft diorite rock carrying a little iron stained lode material, clay, &c.—Block 1158, No. 2 shaft. An new and party have made good progress with this eastern crosscut (100 feet level) extending it for a distance of 67 feet for the fortnight, making a total distance of 189 feet from platt. Face of crosscut is still in iron stained pug material similar in character to that reported on the last occasion.

VENTERSDORP GOLD ESTATES.—The following information has been received from the manager, dated May 15, as to the progress made in the drilling:—Palmietfontein borehole No. 1. This borehole has been continued, and is now down to a depth of 104 feet. The strata drilled is quartzite with a small portion of reef matter distributed through it. The core taken out at a depth of 99 feet has been assayed, showing traces of gold.—Modderfontein borehole No. 2. This new borehole has been drilled to a depth of 22 feet, and at 19 feet a seam of slate 2 inches in thickness was cut. This report only represents one week's work; the second week's report from the manager at the works has not yet been received.

KATHLEEN.—The manager reports under date May 7: Hart idge's shaft. This shaft will now measure 112 feet 6 inches, all completed and secured in the rock all the way from surface. Having secured the shaft solid in the bed-rock and the shaft being wet caused by surface water finding its way down the shaft through the gravel bed 7 feet thick we determined to stop, and on the 24th ult. we started four small shafts, which have been sunk 2 feet through the gravel bed, and a small level driven to communicate to each shaft has since been carried out. We shall commence in a few days to puddle this level with solid clay all around the shaft. With this completed we shall have to put another stope over this said drive in order to puddle the clay through and through the depth of the gravel bed. We are in hopes with completing this to stop the surface water once and for ever. I cannot at present exactly estimate the time necessary to overcome this difficulty, but it will take us at least some weeks. After completing this piece of work we propose to resume sinking the shaft immediately in order to open out at the 150 feet level. This will give us about 50 feet of solid rock, and the various reefs surrounding the shaft will then be easily exposed, so that although we are enabled to sink for the moment, yet I trust in a few months to open up large reefs developments, and as I have before stated I have great hopes of opening up a valuable mine. The plans for machinery, both pumping and winding, are complete, and in a few days the contractors will commence taking out foundations for same, and start building the permanent buildings to receive our machinery. I should point out that no time is lost in developing the mine, as what is being done would necessarily have to be done under the circumstances even before permanent machinery could have been erected. I do not expect having much water to contend with, unless our reefs when cut carry large volumes of water. The surface water in the swamp is the question, and this difficulty we hope to overcome.

EMERALD (Reward).—The manager reports work done on the mines during the present week as follows—viz.: Point 1, main shaft. This shaft has now been fully secured with timber to 6 feet above the surface; all the necessary appliances for completing the work to the 50 feet level have been erected, such as windlass, &c. The steam pump has been placed in position, and the piping connected therewith has been lowered down the shaft all ready to fix on to the pump the moment it is required. The ladder ways have also been put down, and the work of sinking was begun again to-day as advised in last report. I trust to see the contract completed to the 50 feet level within 10 days from now. I am calling tenders for the sinking of the remainder to the 100 feet level. Tenders to close next Thursday, 14th inst., at 12 noon.—Shaft No. 1. I am still stoping on the vein series at this point, and pleased to say the stone obtained therefrom continues of a fair quality.—Point No. 3. Shaft No. 1c. There has been no change in the character of the lode since last report. The driving and stoping in this shaft is still being continued, and there is now 7 tons of ore at grass, which will be added to daily and put through the mill at an early date. I am hoping that now the pump is in the main shaft, the result of pumping the water from this point will be to sufficiently drain shaft No 1c, thould this prove to be the case, I shall at once start to sink below the water level there, as the reef appears to get larger and improve in quality as it goes down below this depth. At present and in accordance with instructions received from Mr. Stanley I have two men employed in obtaining stone from the surface, in order to have a trial crushing therefrom and from samples panned think it will give a fair return for the outlay. A separate account will be kept of this particular crushing. As I had to remove the tailings' pump into the main shaft I shall not be able to start crushing until new pump, now being ordered by Mr. Stanley, arrives here, which I anticipate will be within a month from date.—Shamrock, shaft No. 2. The contractors referred to in last report finished their work last Thursday, since when fresh tenders have been called, and let to two new contractors, who began work on Monday, the 4th inst., the price being the same as before, viz., 25s. per foot. The work so far has been done satisfactorily, and no change has taken place in the size of the lode.

QUEENSLAND BLACK SNAKE FREEHOLD.—The London directors of the Queensland Black Snake Freehold Gold Mining Company (Limited) have been advised by the management in Queensland that the battery which was being erected by their neighbours and at which it was promised their ore should be crushed is still in an unfinished state in consequence of the discovery that owing to the nature of the ore it is doubtful whether the ordinary amalgamation process will be suitable for this treatment, and until this point is settled nothing further will be done to the battery. Under these circumstances it has been decided to discontinue raising ore for the present until the above matter is definitely settled. In the meantime other portions of the property will be further prospected, and one of their most reliable men, who has had very large experience as a prospector, has been sent to West Australia with instructions to proceed to one of the richest districts in that colony and take out a prospecting party on behalf of this company.

LEICESTER DIAMOND.—A recent cable from Kimberley advises the shipment of 711 carats to London, the value of which is £21330. This shipment was made previous to the finding of the three valuable stones value £1000 announced on Friday last. A letter received states that the 38 carat stone found on May 20 has since been valued at £8 per carat.

BALAGHAT MYSORE.—Thomas Richards, May 26: Report for the fortnight ending May 23: Ogle's shaft. A crosscut east has been commenced from the end of the 410 feet level south at a distance of 314 feet 6 inches from the shaft, with the object of intersecting the Coromandel lode. This crosscut has been advanced 20 feet during the fortnight, but it is anticipated that the lode is still some further distance to the east.—Haines shaft. The 410 feet level has been driven north 5 feet 9 inches, total distance from the shaft 185 feet 9 inches. Lode 4 feet wide, assays 1 dwt. 23 grains of gold per ton.

BAYLEY'S REWARD CLAIM.—The following is the report of the work done for fortnight ending April 25:—The rise from back of south drive in Everard shaft has been put up an additional 19 feet and connected with level above. At a point 32 feet south of rise shaft a crosscut has been driven 16 feet off south drive. This crosscut is being driven for the purpose of cutting the Cockshott lode. It is probable that we will require to drive another 16 feet before tapping the reef.

BRITISH BROKEN HILL.—Mining manager's report for week ending May 6:—Main workings.—Blackwood shaft, 100 feet level. 61 tons were broken below the 100 feet level, assaying 34 per cent. lead and 6 ounces silver, and 130¼ tons were mined from the stope above, assaying 37 per cent. lead and 6 ounces silver per ton, all of which were dumped on the large reserve piles on the surface floors.—Howell shaft, 200 feet level. We mined 70 tons lead carbonates, assaying 33 per cent. lead and 2 ounces silver per ton.—Surface.—Jig plant. Several jobs being now completed, we were enabled to discharge a large number of hands from this plant during the week. Good headway has been made with work of fixing launders, and small gear in connection with jiggers. Have nearly finished embankment, &c., for slime dam at bottom of mill. Elevators approaching completion. Have made a start to fix belts on pulleys of crusher gear in top section of mill.—Electric light plant. Work of laying cables, &c., over works proceeding satisfactorily. Switchboard and connections in engine-room nearly finished.—Change and bath house. Good progress made during week with erection of this building. Framing of this roof well in hand.—Week's assays. Carbonates from 21 to 46·5 per cent., and 6 to 13·3 ounces silver per ton.

BAYLEY'S REWARD No. 1 SOUTH.—Following is the report of work done for fortnight ending April 25:—Main shaft. Have let a contract for sinking shaft a further depth of 50 feet, and the work has been commenced.—170 feet level. The north drive has been extended 4 feet, total 103 feet from shaft. Quartz making in the face of drive. Stoping north of rise has been carried out as usual. Stone payable. Lode averages 2 feet 6 inches.—Intermediate level. Have started to drive a crosscut east to intersect the splice of stone at back of 170 feet level. Driven 9 feet, the latter 3 feet being in lode and not through it yet.—120 feet level. Winze sunk 6 feet for fortnight, total depth 24 feet. The lode in winze is 2 feet wide. South drive has been extended 5 feet, total 47 feet from shaft.—90 feet level. The crosscut going east from south drive of prospecting shaft has been extended 18 feet, total 48 feet.—Prospecting shaft. Sunk 5 feet, total depth 84 feet. Have also driven south 8 feet.—New shaft. At a point 57 feet north of main shaft a new shaft has been started and sunk 8 feet.

CRESCENT.—Superintendent's report for fortnight ending May 8: Crescent Mine. Drive north of tunnel B towards main shoot advanced 21 feet, total 88 feet. Lode 6 feet wide, but still poor.—Victory Mine. Extension of tunnel E towards western lode advanced 14 feet, total 308 feet. Passed through a vein of auriferous quartz, which will be developed later on. Work on Neill's shoot at this tunnel has been confined during the past fortnight to stoping at the back of the north and south drives, where the lode over a length of 158 feet has averaged 8 feet in width, and is valued at 1¾ ounce of gold per ton.—Chance Mine. Drive south of tunnel on Howard's eastern lode extended 24 feet, total 42 feet. The lode is not yet well defined, but carries a little gold.—Orlando Mine. Tunnel P extended 14 feet, total 284 feet. The second lode referred to in last report has been reached. It is 2 feet wide and well defined, but non-auriferous at the point of intersection. We have commenced to drive south on the main eastern lode towards main shoot.—Mill. The mill continues to work uninterruptedly night and day, and about 400 tons of stone has already been crushed obtained from the Victory main lode, partly from the stopes but mainly from the old heaps which had accumulated at the surface. The latter will probably have the effect of reducing the estimated yield. We shall clean up on the 13th inst.

COBAR GOLD.—Extract from manager's letter, May 4: I am pleased to state that the stone in No. 1 shaft is improving. In sinking the shaft to the level of the drive southward from the bottom of the north winze a body of very good stone 16 feet wide has been encountered. This is a continuation of the stone at first sunk on in the north winze. We hope shortly to have some crushings of this stone.

CONTINENTAL AND WESTERN AUSTRALIAN TRUST.—The following information as to properties in which this company is interested is to hand from Mr. Edward Hooper, the company's manager in the colony.—Abbott's lease, Cable report states:—Main shaft. Have driven east and found the vein, fully 3 feet wide, average assays 2 ounces per ton.—New shaft. Vein fully 2 feet wide, 30 dwts. per ton.—Six acres lease. Lode opening up well. Vein fully 2 feet wide, 2 ounces per ton. Developments are opening up splendidly. This property has now been purchased outright. A 10 stamp battery is on order.—Viequary Piedmont lease. Shaft No. 1. North drive is in 5 feet, showing 3 feet of good stone. The lode still going strongly. Should the reef continue as it promises, there will be no difficulty in picking it up on the Reward claim. Shaft No. 2. The lode at bottom of shaft is settled and strong.—North drive. The lode is strong and quality improving.—Golden Towers leases. Development is being vigorously prosecuted. Reef improving steadily with depth.—Maitland lease. Mr. T. D. Briggs has been appointed mine manager, and is now in charge of operations. Eastern shaft is being sunk to 80 feet depth, where levels will be driven along the course of the lode. Western shaft is being similarly sunk for the same purpose, and a crosscut will be run between the shafts or levels.

CHAFFER'S.—Report from the company's manager, Messrs. Bowes, Scott, and Co., Coolgardie, dated May 7: West crosscut from 90 feet level in No. 4 shaft driven 9 feet. Country through a hard mixture of slate diorite.—East crosscut 90 feet level, No. 4 shaft driving 14 feet. Ferruginous clay with iron-stone veins.—North drive from east crosscut 90 feet level. No. 4 shaft driven 11 feet. This drive is being driven northwards along the east boundary of the claim, for the purpose of connecting our workings with those of the Boulder Main Reef.

EAST NIGEL.—Report for the fortnight ending May 23: No. 3 incline has been sunk a further depth of 9 feet, making the total depth 129 feet. The water is beginning to increase as we approach the reef, and the rock is getting iron stained and broken. The building in of the boilers for the mill is going on satisfactorily. We are about to start building the engine and boiler house now.

EAST MURCHISON UNITED.—Extract from mine manager's report, dated April 4:—Great Eastern. The level from the bottom of No. 1 shaft has been advanced 8 feet, total distance driven east from shaft 57 feet. The last 8 feet has been in a magnificent body of ore, of which we have only got one wall, but as the level advances I intend to break through on to the footwall. We are 6 feet into the reef at present, with no indication of the footwall. The value of the ore in the face of the drive at present is £8 per ton.

GOLDEN HORSE SHOE.—Report for fortnight ended May 7: South drive from No. 2 shaft advanced 10 feet, making a total of 19 feet. The lode at this point looks well, and some good samples were taken from different parts of it.—West prospecting crosscut, north of No. 2 shaft. This was put in for prospecting purposes and extended 7 feet. Nothing of importance was met with.—South drive from winze in No. 3 shaft. Started during fortnight on course of lode, extended 5 feet. Samples give encouraging results. The lode is very strong, the drives are being carried on the footwall.—North drive from winze in No. 3 shaft. Extended 12 feet, total 18 feet. Samples from all along this give encouraging results.

GREAT BUNINYONG ESTATE.—Alluvial shaft sunk 7 feet, full depth 109 feet. Still in hard blasting rock. Water about same as last reported. At the quartz shaft crosscuts east and west uninterruptedly progressing, the former having advanced 21 feet, and the latter 19 feet. Bands of quartz, introducing considerable increase of water. Eastern face most promising, and more satisfactory tidings may shortly be expected.

GREAT FINGALL REEFS.—Mine manager's report for the week ending May 2: Block 366, No. 1 shaft, 50 feet level south drive on reef B. We have now opened out on reef B at the 50 feet level, not with a view of continuing development on this reef, but with the intention of opening out on reef A. To do this it is necessary for us to drive south for a few feet on reef B, and we shall then crosscut in to reef A. Reef A will then be opened upon and a winze sunk to connect with the drive on this reef at the 100 feet level. It will be remembered that a good run of stone was met with at the 100 feet level on reef A. The winze which will be sunk from the 50 feet level will prove the vertical extent of this run of stone.—Block 366, No. 3 shaft (main), 102 feet level north drive on reef E. Reef 18 inches wide, but poor in gold.—Block 365, No. 8 shaft, 70 feet level, west crosscut. Cut reef at 15 feet from shaft. Reef averages 9 inches in width, and gives a pan result quite equal to 1¼ ounce per ton.—Erection of plant. The main line of shafting has been completed. All brackets for water pipes and platforms have been fitted and fixed in position. The stamper shoes have been driven home and tappets set. The amalgamating tables have been completed and are ready for fixing in position. We have now made a start on the poppet heads for main shaft. The foundation for one boiler stack has been completed.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, dated May 8: Tiddledee Mine. Bibby's new lode. Drive on main lode at tunnel F extended 33 feet. Lode 8 inches wide and valued at 4 dwts. per ton. We should soon reach the main shoot here. Drive on western lode at same tunnel advanced 13 feet, total 214 feet. Lode 8 inches wide and valued at 7 dwts. per ton. Crosscut east from tunnel E towards Bibby's lode advanced 13 feet. Expect to reach lode in a few days.—Saint Bernard Mine. Two men are still engaged driving on the Pennsylvania lode at the upper tunnel, and are obtaining stone valued at 7 dwts. of gold per ton.

KABOONGA.—Report from the mine dated May 5: North-west deep level. This has been extended 30 feet, total 547 feet 6 inches. At 522 feet three men were put on to here up to test progress towards the deep ground. At 38 feet up the bore had to be abandoned, the reef being soft and puggy and closing on bit and auger. Another hole was started at 518 feet. This when up 56 feet had likewise to be abandoned from same cause when it was thought to be nearly through the bedrock. Quartz a foot thick was passed through at 30 feet up. The drive is now being pushed on. Another hole will be started further on.—Balance shaft. This has been risen to the required height and is being opened out for balance cage, pulley, and brake.—Top level. No. 5 drive south-east has been stopped, the bed rock having risen suddenly over the face. No. 7 south-west has been stopped with water increasing and bringing sand away. No. 8 has been started to 90 south-west at 6 feet from face of No. 5. It is in 19 feet 6 inches, with wash (from which fair prospects are obtained) running about level.

LONDON AND WESTERN AUSTRALIAN EXPLORATION.—From mail advices received this week two shafts are now in full working order on the find made by the above company's prospecting party on Block 48 Hampton Plains Estate. The stone keeps its quality, is getting bigger and looks very well. Some of the spurs to the west of the lode are being prospected. The company have been sinking for water near Mount Shea, and at the 100 feet level they have succeeded in tapping a supply which is making at the rate of 500 gallons per day. The country is favourable for further sinking. The company have also secured some promising options at Pendennl.

LIMERICK.—Under date of May 13 a letter from Coolgardie states: Mr. Bad a (manager) had got his pumps going and everything was working smoothly and well. Had you been seen standing on top of either shaft (Nonpariel or Lost Chord), and seen the stream of water each column was delivering, you would have been satisfied.

MENZIES GOLD ESTATES.—Extract from the mine manager's report, dated May 9:—Aurelia. The crosscut west from the 80 feet level south shaft on the Aurelia vein proper has been extended 7 feet, making a total distance from shaft 49 feet. At the bottom of the shaft, which is 126 feet deep, I have cut across the reef to ascertain its full width, and find it to be 5 feet. No. 2 shaft has been sunk 16 feet during the week, present depth from surface is 51 feet.

McKENZIE GOLD MINES.—The undermentioned report has been received from the mine manager: Fortnightly report May 2: Main engine shaft 120 feet level. South drive on lode advanced 7 feet, total distance from shaft 14 feet. Lode in face 18 inches wide.—No. 1 shaft 40 feet level. No. 1 stope north advanced 15 feet, total from shaft 89 feet. No. 2 stope advanced 25 feet, total from shaft 80 feet. No. 3 stope advanced 20 feet, total from shaft 60 feet. Lode from 4 inches to 20 inches wide, estimated yield 1 ounce 5 dwts. gold per ton. No. 2 stope south advanced 22 feet, total from shaft 92 feet, which is the boundary. No. 4 stope advanced 38 feet, total from shaft 50 feet. Lode from 5 inches to 18 inches wide, estimated yield 2½ ounces gold per ton. No. 2 shaft sunk 10 feet 6 inches, total depth below the surface 48 feet 6 inches. Anticipate cutting the lode during the coming fortnight. The south stopes at No. 1 shaft will be through to surface during the coming fortnight will then prepare to drive at a lower level.

MYSORE REEFS (Kangundy).—Mine report for fortnight ending May 26:—Underlie shaft. This shaft has been sunk 6 feet, now 8 feet 6 inches below the 550 feet level. The quartz is 18 inches wide, assaying 15 dwts of gold to the ton. 5.0 feet level north has been extended 10 feet, which is the total distance from shaft. The lode is 2 feet wide, assaying 6 dwts. 8 grains of gold to the ton. Intermediate level 60 feet below the 425 has been extended 11 feet, now 99 feet 6 inches from shaft. The quartz is 1 foot 3 inches wide, assaying 19 dwts. 16 grains of gold to the ton.—Stope above this level. The quartz is 1 foot 6 inches wide, assaying 1 ounce of gold to the ton. 425 feet level north has been extended 11 feet, now 231 feet 7 inches from shaft. The quartz is 15 inches wide, assaying 10 dwts. 12 grains of gold to the ton. We have two stopes below this level north and south of winze. Average width of quartz 1 foot 6 inches, assaying 13 dwts. of gold to the ton. Vertical shaft has been sunk 4 feet 6 inches, now 349 feet 3 inches from surface. The quartz is 1 foot wide, assaying 15 dwts. 18 grains of gold to the ton. Crosscut east of the 280 feet level has been extended 12 feet, now 94 feet 6 inches from level. Trial shaft to the east of new north shaft has been sunk 5 feet, now 58 feet from surface. We are still going down in ancient workings.

MOUNT LYELL.—Engineer in charge of mine reports for week ending May 1: No. 1 tunnel north drive. This drive has been extended 3 feet during the week, making a total of 23 feet.—No. 3 tunnel south drive. Distance driven for week 2 feet, total 379 feet, drive keeping straight, no turn having taken place for the last 43 feet.—No. 4 tunnel south drive. Distance driven for week 3 feet, total 439 feet.—South drive No. 4 tunnel, No. 3 crosscut. Distance driven for week 2 feet, total 34 feet, face not so hard.—No. 4 tunnel south drive No. 2 rise. During the week this rise has been put up 2 feet in high grade ore, making total 18 feet.—No. 4 tunnel south drive, No. 4 crosscut. Distance driven for the week 1 foot, total 17 feet.—No. 4 tunnel south drive, No. 3 rise. Rise has been put up in high grade ore 3 feet for the week, making a total of 16 feet.—Surface work. Compressor site. Compressor and boiler sheds making good progress. The laying of air mains is in progress.—Benches. The stripping of No. 1 bench has been carried on during the week, the spoil being deposited to the south of the outcrop. At No. 2 bench the removal of the overburden on the footwall has been continued. The spoil from No. 3½ bench has been run to bank at the lower end of the incline. As this bank is nearly completed the temporary staging at No. 2½ bench has been removed and the permanent one started. The timber work from the lower end of the incline over the bins is well under way. Ore has been sent over the hauling line to smelter site during the week.—Progress report for week ending May 1:—Hauling line in operation on materials to the mine and some ore. Smelter building. Lining of blower room nearing completion, also other inside work. Crushing plant. One crusher bin filled with ore, steam engine and steam piping finished, and machinery turned over, sampling crushers mounted, delivery bin of Krupp crusher nearing completion. Blast furnaces. Detail pipes of jackets about finished. Hot blast stoves. "B" pipes of first stove all hung, top plates in place, party wall with second stove bricked up. Boilers in use, blowers ready for use. Electric light. Installation outside circuit progressing, dynamo mounted, and half the total lamps in running order and lit up. Inclined tramway. Plate laid, and connection with sample siding made. Weather unsettled and wet.—Superintending railway engineer reports week ending May 3:—Progress almost entirely confined to the earthworks, which are in active progress upon unfinished cuttings in Bali's Creek.

MYSORE.—E. Hancock, May 26, mining operations for the fortnight ending May 29: Rowse's shaft. 1460 feet level north of crosscut west. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 13 dwts. 1 grain.—1460 feet level north of sump winze. We have started to crosscut east from the end of this level for the purpose of intersecting Crocker's chute. Driven 7 feet. There are three stopes in the back of this level, the average width of the lode being 5 feet 4 inches, giving an average assay of 16 dwts. 3 grains.—1360 feet level south of crosscut. This level has been driven 19 feet 6 inches, making a total distance driven of 340 feet 3 inches, the lode is 3 feet wide, assaying 1 ounce 12 dwts. 18 grains. There are five stopes in the back of this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 19 dwts 4 grains.—1340 feet level north of crosscut. The lode in the stope in the back of this level is 1 foot 5 inches wide, assaying 5 dwts. 6 grains.—1360 feet level north of sump winze north-east. This level has been driven 12 feet, making a total distance driven of 485 feet. Having intersected the lode (Crocker's chute) we have started to drive north and south on it. The north end has been driven 6 feet, and the south end 2 feet 6 inches. The lode is 7 feet wide in both ends, and a sample taken across the lode at the point of intersection assayed 4 ounces 10 dwts.—1360 feet level north of sump winze. The crosscut east in this level has been driven 10 feet 6 inches, making a total distance driven of 69 feet 6 inches. There are stopes in the back of this level, the average width of the lode being 2 feet 3 inches giving an average assay of 16 dwts. 12 grains, 1360 feet level south of sump winze. There are two stopes in the back of this level, the average width of the lode being 2 feet 9 inches, giving an average assay of 14 dwts. 8 grains.—1260 feet level north. There are five stopes in this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 1 ounce 3 dwts. 18 grains.—1260 feet level north of crosscut. This end has been driven 18 feet 6 inches, making a total distance driven of 208 feet. The lode is 5 feet wide, assaying 13 dwts. 1 grain. We have started a rise in the back of this level 196 feet north of the crosscut, which has been put up 4 feet. The lode is 4 feet wide, assaying 2 ounces.—1260 feet level south of crosscut. The rise in the back of this level has been put up 16 feet 6 inches, making a total height of 39 feet. The lode is 4 feet wide, assaying 1 ounce 5 dwts. 10 grains.—1260 feet level south. This level has been driven 8 feet 6 inches, making a total distance driven of 333 feet. There is nothing here to report. There are seven stopes in this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 1 dwt. 13 grains.—1160 feet level north. The lode in the stope in the bottom of this level is 2 feet wide, assaying 10 dwts. 10 grains.—1160 feet north of crosscut. This end has been driven 18 feet, making a total distance driven of 218 feet. The lode is 5 feet wide, assaying 1 ounce 2 dwts. 4 grains. The rise in the back of this level has been put up 21 feet, making a total height of 79 feet. The lode is 4 feet wide, assaying 1 ounce 8 dwts.—1160 feet level south. There are five stopes in the back of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 16 dwts. 12 grains.—North of the crosscut east. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 12 dwts. 18 grains.—1060 feet level north crosscut east. This has been driven 6 feet, making a total distance driven of 53 feet 6 inches.—920 feet level south. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce.—Crocker's shaft. This shaft has been sunk 15 feet 6 inches, making a total depth of 90 feet below the 1060.—1060 feet level south. The rise in the back of this level has been put up 9 feet, making a total height of 99 feet, and has not to the 890 feet level north.—890 feet level north crosscut east. This has been driven 9 feet 6 inches, making a total distance driven of 43 feet. The lode in the stope in the back of this level is 5 feet wide, assaying 1 ounce 10 dwts.—890 feet level south. There are six stopes in the back of this level, the average width of the lode being 4 feet 2 inches, giving an average assay of 1 ounce 7 dwts. 9 grains.—790 feet level south. The rise in the back of this level has been put up 8 feet, making a total height from the back of No. 6 stope of 28 feet 6 inches. The lode is 1 foot wide, assaying 6 dwts. 12 grains. There are nine stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 17 dwts, 13 grains.—823 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 14 dwts. 21 grains.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 9 dwts. 18 grains.—Gilbert's shaft. This shaft has been sunk 12 feet 6 inches, making a total depth of 246 feet 6 inches below the 650. —650 feet level north crosscut east. This has been driven 12 feet, making a total distance driven of 27 feet 6 inches. The lode in the stope in the back of this level is 2 feet wide, assaying 12 dwts. 14 grains.—651 feet level south. This level has been driven 13 feet 6 inches, making a total distance driven of 103 feet. The lode is 2 feet 6 inches wide, assaying 10 dwts. 10 grains.—520 feet level north. The lode in the stope in the bottom of this level is 2 feet 6 inches wide, assaying 13 dwts 1 grain.—520 feet level south. The winze in the bottom of this level has been sunk 4 feet 6 inches, making a total depth of 65 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 7 dwts. 3 grains.—360 feet level north. The lode in the stope in the bottom of this level is 1 foot 6 inches wide, assaying 18 dwts. 6 grains.—290 feet level north. There are three stopes in this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 18 dwts. 6 grains.—120 feet level south. There are two stopes in the bottom of this level the average width of the lode being 2 feet 3 inches, giving an average assay of 15 dwts. 7 grains.—Tennant's shaft. 750 feet level north of the crosscut west. This level has been driven 16 feet, making a total distance driven of 427 feet 6 inches. The lode is 1 foot 6 inches, assaying 6 dwts. 12 grains. The winze in the bottom of this level has been sunk 11 feet 6 inches, making a total depth of 53 feet. The lode is 2 feet wide, assaying 6 dwts. 12 grains.—520 feet level north. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 13 dwts. 1 grain.—360 feet level north, south of crosscut. There are two stopes in this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 12 dwts. 10 grains.—Schaw's shaft. 450 feet level north of the crosscut. There are two stopes in the back of this level the average width of the lode being 8 inches, giving an average assay of 1 ounce 3 dwts. 1 grain.—450 feet level south of crosscut. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 6 dwts. 12 grains.—320 feet level north. There are two stopes in the back of this level the average width of the lode being 2 feet, giving an average assay of 11 dwts. 1 grain.—McTaggart's shaft. This shaft has been sunk 10 feet 6 inches, making a total depth of 95 feet 6 inches, below the 650 the lode is 3 feet wide, assaying 1 ounce 18 dwts. 6 grains.—650 feet level north of the crosscut west. This level has been driven 1 foot 6 inches, making a total distance driven of 19 feet. The lode is 1 foot wide, assaying 1 ounce.—650 feet level south of the crosscut west. This level has been driven 12 feet, making a total distance driven of 126 feet.—550 feet level north. This level has been driven 1 foot 9 inches, making a total distance driven of 408 feet 8 inches. The winze in the bottom of this level has been sunk 2 feet 3 inches, making a total depth of 39 feet 6 inches. The lode is 8 inches wide, assaying 3 ounces.—550 feet level, south of crosscut west. This level has been driven 11 feet 6 inches, making a total distance driven of 422 feet 9 inches. The No. 1 winze in the bottom of this level has been sunk 1 foot, making a total depth of 76 feet 3 inches. The lode is 4 inches wide, assaying 1 ounce.—320 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 11 dwts. 10 grains.—Prospect shaft No. 2. 117 feet level south. This level has been driven 7 feet 6 inches, making a total distance driven of 71 feet.—Ribbledale's shaft. This shaft has been sunk 6 feet, making a total depth of 91 feet below the 1520. —1520 feet level north. This level has been driven 18 feet, making a total distance driven of 220 feet. The lode is 2 feet wide, assaying 2 dwts. 14 grains.—Crosscut west from the 1010. This has been driven 13 feet, making a total distance driven of 204 feet.—Williams's shaft. Crosscut east from the 173. Driving north 17 feet from the end of the crosscut. Driven 4 feet, making a total distance driven of 28 feet 6 inches. The lode is 4 inches wide, assaying 8 dwts. 11 grains.—Health. Good. Weather not quite so hot.

NUNDYDROOG.—Thomas Richards' report for the fortnight ending May 23: Kennedy's shaft has been sunk 4 feet 6 inches, total depth 32 feet below the 700 feet level. The 700 north has been driven 7 feet 6 inches, total distance 98 feet. Lode 4 inches wide, assays 2 dwts. 12 grains of gold per ton. The 700 south has been driven 1 feet 6 inches, total distance 86 feet. Lode assays a trace of gold. A rise commenced at the end of the crosscut from the shaft has been put up 6 feet 6 inches. The lode is 1 foot wide, assaying 13 dwts. 18 grains. The 600 north has been driven 23 feet 8 inches, total distance 418 feet 6 inches. Lode 1 foot wide, assays 5 dwts. Nothing of value has been met with in the 600 south crosscut east, the drivage of the level south has been resumed. It has been advanced 2 feet 6 inches, total distance 350 feet 6 inches, and the lode carries a trace of gold. In two stopes in the back of the 520 north the lode averages 5 feet 6 inches in width, and 19 dwts. 8 grains in assay value. The lode in the stope in the back of the 440 north is 5 feet wide, and assays 1 ounce 12 dwts. 12 grains. The 440 south crosscut west has been extended 14 feet 6 inches, total distance 193 feet 6 inches. No change. The level south from the 370 north crosscut west has been driven 14 feet 9 inches, total distance 49 feet 6 inches from the crosscut. Lode of no assay value. The lode in two stopes in the back of the 370 north averages 6 feet in width, and 2 ounces 7 dwts. 15 grains in assay value. In the 370 south back stope the lode is 5 feet wide, and assays 1 ounce 3 dwts. 18 grains. The 300 feet north has been driven 15 feet 6 inches, total distance 423 feet 6 inches. The lode 6 inches wide assays a trace of gold. The rise in the back of this level has been put up 12 feet, total height 19 feet 3 inches. Lode 7 feet wide, assays 2 ounces 5 dwts. In the stope in the back of this level the lode is 5 feet wide, and assays 6 dwts. 6 grains. The 230 north crosscut west has been extended 1 foot 6 inches, total distance 4 feet 9 inches. Stringers of quartz assaying a trace of gold have been passed through. In the stope in the back of the 230 north the lode is 3 feet wide, and assays 7 dwts. 12 grains. The 230 south has been driven 20 feet, total distance 324 feet. The lode consisting of stringers of quartz, assays 3 dwts. 18 grains. The lode in the stope in the back of the 160 north is 4 feet 6 inches wide, and assays 13 dwts. 18 grains. The 1.0 south has been driven 16 feet 6 inches, total distance 528 feet 6 inches. Lode of no assay value. In the stope in the back of the 95 north the lode is 3 feet wide, and assays 2 dwts. 12 grains. North shaft has been sunk 3 feet 6 inches, total depth 55 feet below the 800 feet level. Lode 3 feet 6 inches wide, assays 5 dwts. New shaft has been sunk 7 feet 6 inches, total depth 120 feet 6 inches below surface.—Main shaft. Sinking the shaft has been interrupted by the cutting of ground for a shoot at the 1160 feet level. The 1160 north has been driven 18 feet, total distance 104 feet. Lode assays a trace of gold The 1050 north winze has been sunk 11 feet 6 inches, total depth 75 feet. Lode 4 feet 6 inches wide, assays 1 ounce 12 dwts. 12 grains. In the stope in the back of 1050 north the lode is 4 feet wide, and assays 3 ounces of gold to the ton. In the 920 north back stope the lode is 4 feet wide, and assays 7 dwts. 12 grains. In the stope in the back of the 920 south the lode is 5 feet wide, assaying 1 ounce, and in the stope in the bottom of the same level it is 3 feet 6 inches wide, assaying 1 ounce 7 dwts. 12 grains. The 630 north crosscut east has been extended 13 feet 9 inches, but no further portion of the lode has been met with. The 370 north crosscut east has been extended 6 feet 6 inches total distance 12 feet. At this point a well-defined lode 1 foot 6 inches wide has been met with, but is of no assay value.—Taylor's shaft. The 1240 north has been extended 6 feet, total distance 393 feet 3 inches. Lode assays a trace of gold. The 1240 south crosscut east has been extended 4 feet 6 inches, total distance 54 feet. No change. In two stopes in the back of the 1000 north the lode averages 4 feet in width and 4 dwts. 18 grains in assay value. In the 920 north back stope the lode is 3 feet wide, and assays 5 dwts. The lode in two stopes in the back of the 840 north averages 3 feet in width and 8 dwts. 18 grains in assay value. The 840 south rise has been put up 4 feet, total height 58 feet 6 inches. Lode 6 inches wide assays 3 dwts. 18 grains. In two stopes in the back of the 800 north the lode averages 2 feet 6 inches in width and 8 dwts. 21 grains in assay value. In the stope in the back of the 520 north the lode is 2 feet wide assaying 8 dwts. 18 grains, and in the 230 south back stope it is 1 foot 6 inches wide assaying 1 ounce.—No. 2 trial shaft on the Oriental lode in the western part of the property has reached a depth of 62 feet from surface, and has been secured by timber to this depth. The lode is of great width, only a part of it being carried in the shaft, but so far as yet proved is of no assay value.—No. 1 trial shaft which is now being commenced on the West Balaghat lode is nearer the main workings on the Champion lode than No. 2 shaft on the Oriental lode.—Old mill samples. Pulp 1 ounce 7 dwts, 12 grains; tailings 3 dwts. 18 grains.—New mill samples. Pulp 1 ounce 1 dwt. 8 grains; tailings 4 dwts.

NEW PRIMROSE.—Manager's report for week ending May 18 states:—On No. 11 level east the drive will be connected with north reef winze from tenth level within a day or two; this will open up very good stope as reef in both drive and winze is giving indications of improvement. On the 11th level west good results are being obtained from middle reef.—May Deep, Fifth level east and west, both drives are going forward rapidly. Both winzes east and west fourth level will be connected in a day or two, which will open up two good stopes.

NERBUDDA COAL AND IRON.—Extract from manager's letter, dated Mooltapani, May 27: At the mines. Old field. All well. We have had the O. F. W. No. 2 seam off work three days, owing to the heat of the weather preventing natural ventilation, on which we have been working. We soon made other arrangements, however, and recommenced as usual this morning.—At the mines, New field. No. 24 shaft sinking cut the No. 2 seam coal on Monday, and I wired you yesterday:—"Reached No. 2 seam at 24 shaft." You will, I am sure, be glad to learn that we are down to this seam at last. The coal quite at the top of the seam is fine bright coal and burns well, but we are not yet into the best of it. We are now lowering the pumps. The railway earthwork is all but finished now.—Sales to date. Old field G.I.P., 1558 tons 14 cwts.; mills, 190 tons 6 cwts.; total 1779 tons.

NIEKERK.—The following is the manager's report for the week ending May 23: No. 1 winze crosscut north driven 11 feet, total 121 feet in one pair of 15 feet rails laid. One 6 inch hand power geared air fan fixed, and 170 feet 6 inch piping placed.—No. 2 winze. Incline sunk 8 feet, total 106 feet. One set of timber placed.—No. 3 winze. Incline sunk 3 feet, total 58 feet. One set of timber placed. Work temporarily delayed by rush of water upon connecting with old diggers stopes now got under.—No. 21 winze. Incline sunk 1 foot, total 56 feet. Sinking temporarily delayed to relay rails, and raise slits consequent upon lode flattening. Douglas pump and one set timber placed. Sunk during week 12 feet, driven during week 11 feet, total 23 feet.—Joseph Hassall.

NINE REEFS.—Mine report for fortnight ending May 25: Oriental lode. Main shaft has been sunk 13 feet 8 inches, total depth below the 310 feet level is 63 feet 6 inches. The lode is 6 feet wide, carrying 3 feet quartz, its assay value being 2 dwts. 16 grains of gold per ton.—The 310 feet level north of main shaft. This has been driven 29 feet 6 inches, total distance from shaft is 208 feet. The lode is 1 foot wide, composed of quartz and arsenical pyrites, assaying 3 dwts. 15 grains of gold per ton.—The 310 feet level south of Bayna'd's shaft. This has been driven 32 feet 6 inches, total distance from Baynard's shaft 191 feet 6 inches. The lode is 2 feet wide, composed of quartz, arsenical pyrites, and black rock, assaying 1 dwt. 4 grains of gold per ton.—Morrison shaft. We are now engaged in putting down ladder road and cutting ground for skip road.—New water shaft. This has been sunk 4 feet, total distance 21 feet. Rock very hard.—Surface work. This is going on in the usual way.—Health. The health of the camp continues good.

KEMPINKOTE.—Mine report of Mr. R. H. P. Bullen, dated May 23: I have the pleasure to report as follows upon the work done for the week ending May 22: Garland's shaft. 500 feet level north has been driven 34 feet 6 inches, making a total length of 468 feet 6 inches from the main crosscut. There is a small patch of lode in the end worth a trace of gold to the ton. No. 3 crosscut from the 500 feet north drive has been advanced 5 feet 6 inches, making a total length of 16 feet. The whole end is in lode worth 18 grains of gold to the ton. 400 feet level south has been driven 21 feet, making a total length of 339 feet. The lode is the full size of the end, assaying 6 grains of gold to the ton. North drive from No. 2 winze, 245 feet level north, has been driven 4 feet, making a total length of 22 feet 6 inches. The lode is the full size of the end, but is of very low grade. North drive from No. 2 east crosscut, 183 feet level south, has been driven 4 feet 9 inches, making a total length of 13 feet 9 inches. The lode is the full size of the end, assaying 18 grains of gold to the ton.

QUEEN CROSS REEF.—Manager's report for fortnight ending April 21: The underlie shaft has been sunk 8 feet, making a total of 103 feet from the drive. Have started to open out two drives, the eastern one has been driven 6 feet since Thursday last and carries 2 feet 6 inches of good quality stone in the face. The western drive has been driven 5 feet, and also carries 2 feet 6 inches of good quality stone. Have sunk the winze 8 feet, making it a total of 108 feet from the drive, there are about 2 feet of good quality stone in the sink. Have stopped the winze, as I think it is deep enough for the drive below. The No. 1 drive east has been driven 6 feet, making a total of 146 feet from the shaft, there are 6 inches of good quality stone in the face. The stopes over this drive keep about the same as last reported. We have had a rough cleaning up at the battery of about 250 tons for a yield of 679 ounces 1 dwt. 18 grains of smelted gold. The total amount taken to the battery is 368 tons and the quantity of stone raised for the fortnight is 90 tons, leaving 148 tons in the paddock.

VICTORY (Charters Towers).—Mining manager's report for fortnight ending May 2: No. 2 shaft. The 320 feet level has been driven west a further 12 feet, present length of this drive from shaft 354 feet. There is no change here to report. In the rise at No. 1 the reef is small, will average 6 inches, quality about the same as that crushed last. No. 7 level has been driven 7 feet the fortnight, total length of this drive 33 feet. I think from the appearance of the country here we should soon get a change for the better. 15 tons have been hauled from this shaft for the fortnight, total at surface 41 tons.—No. 3 shaft. The underlie has been sunk 23 feet for the fortnight, present depth 255 feet. There is 8 inches of reef on hanging wall and 4 on footwall, with a formation of 12 feet between. The stone on footwall is carrying fair mineral, but that on the hanging wall is carrying very little mineral and the quality is not as good. No. 1 level the drive going east is 51 feet, this is near the boundary. The western drive at this level has been driven 4 feet, present length 44 feet. There is a reef come in this drive again showing about 6 inches in the face, the quality poor. There has been hauled from this shaft for the fortnight 15 tons, total at surface 23 tons.

YERRAKONDA.—Mine report for fortnight ending May 26:—South shaft. This shaft has been sunk 14 feet, now 47 feet below the 255 feet level. The lode is 3 feet wide, assaying 6 dwts. 15 grains of gold to the ton. 255 feet level south has been extended 15 feet 6 inches, making a total distance from shaft of 187 feet. The lode is 3 feet wide, assaying 3 dwts. 9 grains of gold to the ton.

VICTORIA AND QUEEN.—Manager's report for fortnight ending April 28: Have driven the No. 4 level a further distance of 10 feet, making total 78 feet. The reef is about 8 inches thick of heavy mineral stone. The underhand stopes average about 18 inches of good quality stone. The stopes at the back of this level average about 1 foot of good quality stone. The winze at the end of No. 3 crosscut has been sunk a further depth of 3 feet, making a total of 77 feet. The reef is about 15 inches thick of good quality stone. Have driven No. 3 drive a further distance of 12 feet, making a total of 139 feet. The reef is about 9 inches of fair quality stone. The underhand stopes in this level averages from 9 inches to 1 foot of good quality stone. The back stope averages 15 inches of fair quality stone. The winze at the bottom of No. 3 has been sunk 22 feet. The reef is about 4 inches. Crushed during the fortnight 255 tons for a yield of 740 ounces of smelted gold. Hauled during the fortnight 105 tons, making a total for this crushing of 605 tons.

WEST AUSTRALIAN GOLD CONCESSIONS.—Report from the manager of the Brownhill Great Eastern Gold Mines dated Coolgardie, May 13: On No. 2 shaft on lease 2120 a crosscut has been driven 23 feet west at the 101 feet level, passing through a formation of ironstone 3 feet wide. This formation is the same as was struck in shaft at 90 feet level (assay of which I sent you in my last report.) I am continuing this crosscut in the hope of striking another lode. The country is very promising, and is similar to that in some of the rich mines further south.

YALGOO BATTERY.—Report from the company's managers, Messrs. F. W. Prell and Co., Melbourne, dated May 11: The work is proceeding satisfactorily, and the reef in the underlie shaft is showing fair gold, whilst the outcropping reef on the Britannia, which is being stripped and opened out, also looks well for gold. From all we can learn the railway is being pushed on very quickly, and will be opened up to Yalgoo within about six or seven weeks from now. In the meantime all the roads are drying up well, leaving fair feed and plenty of water, which, in the event of the battery arriving before completion of the railway, will reduce the rate of cartage to be paid, should we have to take the machinery across by teams.

FREDERICK THE GREAT.—Copy of letter from Bendigo, dated May 2 We have the honour to report to you the following progress in your mine during the past fortnight. The level south at No. 5, or 680 feet from the surface, has been driven a further distance of 5 feet, total south of crosscut 530 feet, and put in two sets of timber. The crosscut east through the reef to meet the winze from the 580 feet level was then started, and has been driven and timbered 25 feet, total distance from wall to wall in the centre of crosscut 28 feet. There is 12 feet of stone on the east side of this reef which is heavily charged with minerals and shows payable gold. We are now starting to rise to meet the winze. The level south at No. 5 or 780 feet from the surface has been driven 11 feet, total south of crosscut 463 feet. There is a large body of stone on the east side of this level of a very promising appearance. The winze below the 580 feet level 510 feet south of main crosscut has been sunk a further depth of 15 feet, total 67 feet. Ground in the bottom hard sandstone and quartz spurs - the gold-bearing stone that was in this winze has gone out to the west. Expect to connect this winze with the rise from the 680 feet level during the coming fortnight.

LOMBARDY.—Manager reports for week ended May 9:—Main shaft has been sunk to a total depth of 126 feet. Have now cut through the reef which shows 2 feet of quartz in a formation 7 feet wide. On the footwall it is well mineralised and shows gold freely. It is a strong looking lode and gives fully 2 ounces by dolly tests. I have stopped sinking and started to drive on the line of the lode on each side of shaft. Water shaft has been sunk to a depth of 139 feet and water is increasing fairly well. In another 11 feet think we shall have a fairly good supply.

MYALLS UNITED.—Report for fortnight ending May 2: Main shaft sunk 13 feet 6 inches, now down 138 feet 6 inches. Water still increasing and general appearances favourable for existence of a lode.—No. 1 shaft, drive north, extended 8 feet, now in 97 feet 6 inches. Drive south extended 5 feet, now in 37 feet 6 inches, strata much disturbed. Men have been kept at half time here and surface work pushed forward. The first clean-up on April 23 yielded 1 ounce per ton, being from ore from the deepest workings with a strong body of ore still going down is encouraging, our main shaft should open up good blocks of ground from its deepest levels, our tailings assay only 3 dwts. 6 grains.

ST. DENIS.—The following is the latest report received from the manager in Western Australia: Lease 1953. We have made fair progress with timbering the main shaft ordered by Mr. Leslie Porman. Three sets have been put in, and the balance is cut and nearly all dressed, and will be all put in during the coming week, and sinking resumed.—Lease 1462: Crosscut west driven 38 feet at water level, and east 56 feet on the same level. Nothing but small leaders of ironstone and quartz have been met with at that level. I have therefore timbered up the shaft and resumed sinking deeper, and a large body of decomposed ironstone has been met with, mixed with slate and a little quartz. This is on the supposed line of the reef found in the Ethel Hope Mine.

THE FEDERATED INSTITUTION OF MINING ENGINEERS.

PRESIDENTIAL ADDRESS.

(*Concluded from page 757.*)

It is interesting to notice in the literature of the coal trade how frequently reference is made to periods of depression, and it is not only interesting but comforting, because, if our complaint of bad times is nothing new, we may hope that the present depression will pass away, as others have done in the past. The miners of this country have had from early times, during these periods of depression, their own ideas about putting things right. About 50 years ago the theories that were being preached were very much the same as those which are producing such uneasiness in coal trades circles at present. The men were bent on combination and restriction as a cure for the evils of the time, and they aimed at a minimum wage, as they do now. We find that in 1847 John Hall, secretary to the Miners' Association, said:—"If a period arrives when trade is bad and the demand for coal declines, we propose to keep up the colliers' wages by regulating the supply and keeping coal dear, so that they will still earn (say) 3s. 6d. a day for a less quantity of coal."

Few who have made a thoughtful study of the subject believe that combinations and restrictions can keep up prices and wages for any lengthened period of time when they would naturally fall. It is clear that they have never done so in the past, and history will doubtless repeat itself. Even Parliament could not permanently fix prices. It is, perhaps, little known that this has been tried, but such is the case. The Privy Council of Scotland in 1621 enacted that the price of coal was to be fixed at 7s. Scots per load, and subsequently at 7s. 8d. on certain owners objecting to the price fixed. Needless to say, the attempted regulation was not long continued. It is unfortunate that trade is hampered so often by disputes between masters and men. Many of these arise from the desire to force on changes in the conditions of employment, some of which may come gradually, but can come in no other way. Miners appear not to realize in what an immensely better position they are than those who preceded them.

As illustrating the improvement in the conditions of the employment of miners, I may mention a fact in the history of mining in Scotland which may be new to some here. Until an Act was passed in 1775, not really taking effect until 1799, miners in Scotland were practically slaves. No collier was permitted to remove from one place to another without special permission from his employer, and no person was allowed to engage a collier without a certificate from his previous employer showing a reasonable cause for the change. If a collier deserted, his employer could claim him within a year and a day, and he had to be given back at once under pain of a penalty of £100. The deserters were liable to be punished as thieves. It is difficult to realize that such a state of matters could exist less than 100 years ago.

It is unfortunate that the present should be choosen for an agitation for a minimum wage, when the outlook for the coal trade is so unpromising. Foreign competition both in the coal trade and in the iron trade is keener than it ever has been, and extraordinary efforts are being made by Continental countries to take our trade from us. Foreign competition is nothing new. We find, for instance, in *The Mining Journal* for 1848, a reference to the importation of rails or railway bars, as they were then named, from America, and in a Parliamentary Report for 1847 we find statistics of the competition of Germany with Sheffield and Birmingham in cutlery. The competition has become intensified, and is not now confined to a few special manufactured articles. Germany and Belgium especially are competing with us in many markets in the coal and iron trades. The position as regards the iron trade has been brought home to the British public in the Report on the Iron and Steel Industries of Belgium, presented by the delegation organised by the British Iron Trade Association. In this report there is much instructive reading.

Some attention is given to the question of shipping freights and railway rates, and since the issue of the report there has been much discussion regarding these matters. It is stated that until quite recently the P. and O. Steam Shipping Company carried goods from Antwerp or Calcutta *vid* London at 10s. per ton, whereas the freight for the same goods of British manufacture from London was 15s. 9d. in the same steamers. It is difficult to understand how such rates can be justified, and it is certain that they have seriously interfered with shipments from this country. At the present moment, I am informed, it costs 6s. 4d. per ton more to convey manufactured iron from Glasgow to Bombay than from Antwerp. In dealing with railway rates, it is shown that iron and steel are conveyed in Germany and Belgium at rates which are about one-half and one-third of those charged in this country for similar distances.

There is at times a cry for State ownership of railways on the ground that such would lead to economy and to the granting of greater facilities, but it is maintained by many authorities that experience has shown this not to be the case, and that railways thrive better and serve the public better than when worked as private concerns. If this is a correct conclusion, it is probably also the case that it is not desirable that the Government should deal too strictly with rates, which are naturally best fixed by those in contact with all the facts of the case. At the same time, if managers of railway companies rest in the security of arrangements with other companies, and do not give the facilities required to stimulate trade, the traders may be compelled to call for further control. It cannot be denied that there are defects in our railway system. There ought to be, for instance, more interchange of traffic, on reasonable terms between different railway companies, and more reckoning of distances on several railways as if only one one. It appears unfair, for example, that if a railway company possesses the only access to a dock with shipping facilities, that it should have the power of fixing prohibitory rates for goods from other railways. That the Government seems to recognize this is shown in the case of the Bo'ness Dock. When this Session the North British Railway Company applied to Parliament for liberty to purchase the dock, it was laid down as a condition that coal from collieries on the Caledonian Railway should have advantage of the same rates as from collieries on the North British Railway. Rather than grant the terms the North British Railway Company stated that they would not proceed with the Bill. Railway companies ought to recognise that the time is past for such monopolies. They will, if wise, face the increasing difficulties of the situation, and give rates which, with a due regard to the cost of transit, are sufficiently low to encourage business.

We have been hearing much lately about motor cars, or horseless carriages, and it is anticipated by some that these may, in the future, compete successfully with railway companies for short distance traffic at least. The attempt to introduce motive power on common roads for the conveyance of passengers and goods is not new. In the literature of 50 years ago there are many references to steam carriages. Patents were taken out, and one company is spoken of as being formed with a capital of £200,000 in connection with the improvements designed by Sir J. Anderson, Bart. Many carriages were run—and run successfully—and everything seemed to point to a rapid development. It is probable that they would not have so completely disappeared from use except as represented in late years by the clumsy traction engine, if it had not been for the vexatious legislation by Government, and the vexatious restrictions put on their use by public bodies. The history of the treatment given them has been little short of a disgrace, and it is not complimentary to the English nation that Continental countries have been so far before us in the adoption of such carriages. The proposed Act being considered in Parliament at present is intended to produce a better state of matters, and it is safe to prophesy, if it is passed, that in a very short period motor cars for passengers and for goods will be very largely made use of in this country. That they will compete with railways for short distance traffic is possible. With the use of oil motors they can be made very light, and easily handled, and where coal, for example, has to be carted from the railway depot to the consumer, after being conveyed a short distance by rail, it is possible that it could be more cheaply conveyed by motor cars all the way from the colliery. Whether this competition will take place or not, it is practically certain that there will be established a new and very large industry.

In my address I have spoken specially on coal mining and on subjects relating thereto, as those with which I am directly interested, but our Institution does not confine itself to coal-mining subjects. During the last few years we have had an increasingly large number of papers on gold mining and on the treatment of ores, and some of these papers have been of very special interest. The energy expended in the search for gold during recent years has, perhaps, been unparalleled in the world's history. One notable feature in the gold mining of the present day, especially in South African mining, is the establishment of the industry on a scientific basis. The very best engineering and chemical knowledge has been devoted to the devising of economies in the production and treatment of ores, and to the invention of processes whereby the largest possible amount of gold may be extracted from the ore. One invention—that of the cyanide process (MacArthur-Forrest patent)—has practically revolutionised gold mining in South Africa and New Zealand, and is also exerting a great influence on the treatment of ores elsewhere. Generally, it may be said that gold mines are very much more efficiently managed than formerly, and as a result, it is likely that for many years to come the world's output of gold will be very largely in excess of what it has been in the past.

Papers on gold mines and on relative subjects are of increasing interest to us all. We are to have several before us to-day, and we look forward to many more on gold fields and gold mining. There are many other subjects which engage our attention at the meetings of our local institutes and of the Federated Institution of Mining Engineers, and too much cannot be said of the value of such means of spreading information. The papers that are read, and the discussions in connection with these, record from time to time what is known concerning the many varied problems which engineers encounter in their work. The consideration of these assists us in keeping up with the knowledge of the day. Such knowledge daily increases, and increases not so much by the making of great discoveries, as by the intelligent application of known principles to the different departments of mining. There are many different fields, and there is an opportunity for us all to take some part in the improvements which will come. The "Transactions" in the future, we hope, will bear witness to much ability, intelligence, and much honest work on the part of our members.

COAL IN JAPAN.—The total output of coal from the mines of the Tanko Kaisha during 1895 was 403,000 tons, an increase of 110,000 on the preceding year. A special impetus was given to these mines on account of the difficulty of obtaining transport for the Kiushiu coal during and after the war. This difficulty reacted favourably on the Hokkaido mines, and by means of foreign chartered vessels the coal was at once put on the Tokio and Osaka markets, where it had a ready sale.

METAL CIRCULARS.

MESSRS. JAMES LEWIS and SON'S Mid-Monthly Report on Copper, dated Liverpool, June 16, states that from £47 2s. 6d. for cash on the 1st inst. good merchantable copper advanced to £47 18s. 9d. on the 3rd, falling next day to £47 11s. 3d., recovering to £47 18s. 9d., and falling again to £47 12s. 6d. on the 5th. There was but slight change until the 12th, when with a turnover of about 3000 tons prices advanced to £48 17s. 6d., followed on the 15th by a very excited market, up to £50 7s. 6d. being paid—from which there was a reaction to £50, £49 17s. 6d. being accepted for three months or lower than the cash price. The firm having secured about 10,000 tons for forward delivery commenced to buy and take up cash warrants: These being found very scarce, there was a general rush to buy and to cover previous sales, about 3600 tons changing hands on the 15th. To-day's transactions amounted to about 2800 tons at £50 5s. to £49 16s. 3d., with a reaction to £50 1s. 3d., the day closing with buyers in all positions at £49 15s. per ton, the market being sustained by the purchase of about 600 tons by the previous large buyers who now control nearly the whole of the available supply of warrants. A good business has been done in English refined copper, and sales of manufactured have been made to India. High conductivity copper is in much demand, but early delivery is very difficult to obtain. In New York the price of Lake copper has advanced from 11½ to 11¾ cents per lb. So much copper having been sold to Europe for shipment up to the end of June but little is available for American consumers, and copper for early delivery has consequently been very scarce. After this month, with increased home deliveries, exports to Europe are expected to fall off. With the adjournment of Congress and the pronouncements in favour of maintaining a gold standard, trade generally in the United States already shows signs of improvement. By the purchase of 270,000 additional shares of the Anaconda Mining Company nearly one-half of the total capital of 1,200,000 shares has been secured on London and Paris account. This transfer of interests is likely to have an important bearing on the future value of copper, as it is to be presumed that the property will be managed with a view to the payment of dividends rather than to the production of a quantity of copper in excess of that of any rival company. It is understood that as a result of this purchase the interests and policy of the Anaconda, Rio Tinto, and Boleo Companies (representing a production of 100,000 tons of copper per annum out of a total of 360,000 tons) will be identical. The Board of Trade Returns for the five months ending May 31, show the following results:—

	1895. Tons fine.		1896. Tons fine.
Imports into England	47,330	.....	55,049
Exports from England	25,863	.....	29,900
Difference	21,467	.....	25,149
Decrease in stocks, Jan. 1 to May 31	1,128	.....	12,377
Apparent consumption in England (including sulphate of copper made and subsequently exported)	22,595	.....	37,526

The increasad consumption of England this year is therefore, 14,931 tons, or at the rate of 35,834 tons per annum.

The official German figures for the first four months of the year are:—

	1895. Tons.		1896. Tons.
Import	11,627	.....	18,338
Export	2,821	.....	2,880
Consumption	8,806	.....	15,458

The increased consumption of Germany (exclusive of the copper obtained from their own mines and from pyrites imported) for 1896 is, therefore, at the rate of 19,956 tons per annum in excess of that of 1895.

The following shows the consumption of France for the five months ending May 31:—

	1895. Tons.		1896. Tons.
Shipments from United States	5,039	.....	9,197
Do. England	4,150	.....	2,783
Imports from other countries	4,269	.....	4,917
	13,458	.....	16,997
Difference in stocks Jan. 1 to May 31 ... Increase	325	Increase	1,211
	13,133	.....	15,786

The increased consumption of England, Germany, and France is at the rate of 62,157 tons per annum. Last year the production of the world was about 8000 tons less than the consumption. This year the production of the world (allowing for an increase of 35,000 tons) promises to be fully 35,000 tons less than the consumption, leaving a stock of about 8000 tons at the end of the year. So many orders have already been booked by consumers for delivery over the next six months, that a much higher range of prices, which seems inevitable, will have little effect on consumption, while production cannot be materially increased for some time, as that of the American mines is dependent on the extent of their concentrating and smelting plant which it would take many months to enlarge.

MESSRS. HARRINGTON and Co.'s Copper Report, dated Liverpool, June 16, states: Chili Charter for the past fortnight are cabled as 1500 tons, making the total since December 31 last 11,400 tons, against 10,750 tons same time last year. Exchange 17¾d. Fully 19,000 tons G.M.B.'s must have changed hands since our last. On the 2nd inst we opened with an active demand and strong buying in a single quarter, which has now been the principal feature for some little time, and a rise of 10s. per ton took place, business being done up to £47 13s. 9d. cash and £48 forward. From this date market became very sensitive, and consequently rather irregular until on the 11th inst, when a firmer tone assumed itself, and prices quickly advanced to £48 1s. 3d. and £48 7s. 6d. respectively. On the 12th and following days, owing to cash and short dates being in special request for "bear" covering as well as on behalf of the "persistent" buyers, market became strong and excited, causing a quick advance to £50 7s. 6d. and £50 12s. 6d., which were the prices paid yesterday, and the highest during the fortnight. At this point, owing to realisations values quickly gave way until £50 was reached, and at this figure G.M.B.'s in any position up to three months were available, thus doing away with any premium on forward prompts that has existed so long. To-day market, after opening firm and active, with business up to £50 5s., closes easier at £49 15s. for both cash and forward. Former looks like being at a premium shortly. The American market has been firmer, and the last quotation for Lake copper is given as 11·50 to 11·75 cents. per lb. The following are the returns of the Copper Producers' Committee;—

		May.	11 Months.		Maximum allowed under old agreement.
European Production	Tons	7,495	78,867		73,351
American	,,	15,533	104,110		114,782
,, from Pyrites	,,	1,100	12,600		13,292
Total	...	24,228	255,577		201,425
American Exports	...	10,481	79,539		55,000

The total stocks in Liverpool, Swansea, London, and Havre are 31,735 tons, against 31,751 tons on the 1st inst., showing a decrease of 16 tons for the fortnight. The stocks include about 1300 tons of copper sold, but not yet delivered to smelters. The visible supply for the fortnight is 37,340 tons, against 35,795 tons on the 1st inst., showing an increase of 545 tons. Refined and manufactured sorts are firm. Quotations being:—Tough cake, £54 to £54 10s.; best select, £54 10s. to £55; Indian sheets, £56; strong sheets, £59; and yellow metal sheets, 5d. per lb.—Furnace material. Business has been done, but particulars have not transpired.

	Tons fine.		Tons fine.	
Import of Chili copper during the past fortnight	912	against	875	same time last year.
Delivery of Chili copper during the past fortnight	1528	,,	379	,, ,,
Import of other copper during the past fortnight	1820	,,	3452	,, ,,
Delivery of other copper during the past fortnight	1428	,,	3050	,, ,,

The total imports of Chili and other copper into Liverpool and Swansea since January 1 have been 26,183 tons; deliveries during the same period 47,875 tons fine; for same time last year the figures were 29,997 and 24,966 respectively.

Quotations are:	To-day.		June 1, 1896.
Chili bars	£49 15s. cash and 3 months	...	£47 3s. 9d. cash and £47 10s. 3 months
,, Ore	9s. 4¼d. to 9s. 7½d.	...	9s. 1½d. to 9s. 4¼d.
,, Regulus or matte	9s. 9d. to 10s.	...	9s. 6d. to 9s. 9d.
Precipitate	10s. 1½d. to 10s. 3d.	...	9s. 10½d.
	June 18, 1895.		June 19, 1894.
Chili bars	£42 7s. 6d. cash and £42 15s. 3 months	...	£37 18s. 9d. cash and £38 7s. 6d. 3 months
,, Ore	7s. 10½d. to 8s. 4¼d.	...	6s. 9d. to 7s.
,, Regulus or matte	8s. 7½d.	...	7s. to 7s. 3d.
Precipitate	9s.	...	7s. 3d. to 7s. 6d.

Tin. Since our last the market for cash Straits has advanced in sympathy with copper, fluctuating between £59 12s. 9d. and £61 17s. 6d., closing to-day at £61 13s. 9d., Australian £62 12s., English £65 10s., and Peruvian £59 to £60, according to quality.—Sulphate of copper. Makers are firm at £18 to £18 10s. spot, July about £17 10s. Lead during the past fortnight has been steady, closing at £10 18s. 9d. to £11 for Spanish, and £11 5s. for English.—Spelter. The market since our last has been firm, closing steady at £18 to £18 5s. for ordinary Silesian brands.—Quicksilver. Since our last the market has been dull, closing quiet at £8 7s. 6d. per bottle for Spanish.—Bar silver. Prices have fluctuated between 213/16d. and 31¼d. per ounce standard, closing to-day at 31¾d. Antimony quiet, Star regulus at £30 to £30 10s. per ton. Ore irregular, about £8 to £8 10s. for 50 per cent., good quality and produce.—Bank rate of discount The rate has remained at 2 per cent. since February 22, 1894.

MESSRS. HENRY BATH and SONS in their fortnightly copper report dated June 17 state:—The Chili Charters for the past fortnight are advised as 1500 tons. The latest exchange is 17¾d. We have had active and at times excited markets with generally improving prices. Heavy purchases were made from the 2nd to the 12th instant at from £48 12s. 6d. to £48 17s. 6d. cash, three months being done at 6s. 3d. to 5s. more. On the 15th the market opened strong, and up to £50 6s. 3d. cash and £50 12s. 6d. three months were paid, but sellers of forward (no doubt largely profit taking) soon forced the price down until both cash and forward reached the same level. Yesterday a good business was doing but the closing price was £49 15s. all positions. This morning there was a large business with free forward selling, and down to £49 3s. 9d. was accepted, closing irregular at £49 5s., the nearest quotation for all positions,

In connection with the recent sharp rise in values and the large buying orders in the market for G.M.B.'s, it is worth while drawing attention to the condition of affairs disclosed by the figures. On January 1 last the actual stock of copper available for European consumption stood at 42,917 tons, to-day it is only 31,737 tons. The production of the world is more or less stationary, with the exception that in the United States there is an increase in this respect and a decrease, due to local disturbances in the consumption, and consequently the exports to Europe from that quarter have increased to the extent of more than 20,000 tons since the beginning of the year. The steady decrease in stocks coincides with a period of abnormally large supplies and marks a very large and increasing European consumption, whilst any improvement in the home trade in the United States would put a further strain upon the already much reduced stocks held in this country. The price of Lake copper has advanced to 11¾ cents per lb., the market in New York being reported firm. Certainly very full prices are now asked for copper from there. The shipments for the past fortnight are advised as 4899 tons. The arrivals and deliveries at Hamburg, Rotterdam, and Antwerp for the fortnight amount to about 2943 tons. Imports of American copper into England have been 1193 tons, and into France 1055 tons, or 2248 tons against 1125 tons last year. Total actual deliveries for the fortnight have been 4669 tons against 4653 tons imports. The stocks have decreased 16 tons. Total visible shows 37,435 tons against 36,901 tons last fortnight. We have no transactions in furnace material to report during the past fortnight.

England and France.	Imports.	D'liv'r's.	Stocks.	Afloat & Chartered for.	Total visible supply.
Chili copper at Liverpool, Swansea and in France	912	1629	26,854	3850	30,704
Foreign copper in London, chiefly Australian and Japanese	450	494	848	1850	2,698
American copper at Liverpool, London, and Swansea	1193	1193	645	—	645
Other copper at Liverpool & Swansea	1003	653	1,382	—	1,282
American copper in France	1055	625	1,692	—	1,692
Other copper in France	40	70	414	—	414
Tons fine copper during the fortnight	4653	4669	31,735	5700	37,435
Against tons on June 2, 1896	4736	5771	31,751	5150	36,901
Against tons on May 19, 1896	4383	5343	32,786	4000	36,786

	1895.	1894.	1893.	1892.	1891.
Total visible supply June 16	58,171	49,153	49,112	55,683	57,400
	1890.	1836.	1889.		1887.
Total visible supply June 16	76,397	114,087	71,312		52,171

Price of Chili Bars same date:—£42 7s. 6d., £37 18s. 9d., £44 11s. 3d., £45 12s. 6d., £56, £59 7s. 6d., £41 7s. 6d., £32 12s. 6d., £29 7s. 6d.

	1896. Tons fine.	1895. Tons fine.	1894. Tons fine.	1893. Tons fine.	1892. Tons fine.
Imports from Chili and Bolivia from January 1 to date	9,450	9,568	9,571	9,673	8,954
Imports from America from January 1 to date	32,403	15,605	21,108	15,000	13,181
	1891. Tons fine.	1890. Tons fine.	1889. Tons fine.	1888. Tons fine.	1887. Tons fine.
Imports from Chili and Bolivia from January 1 to date	9,092	12,095	14,169	17,127	14,562
Imports from America from January 1 to date	16,778	11,455	11,830	17,553	6,289

The shipments to Europe from America from January 1 to date are 53,147 tons as against 28,719 for the corresponding period last year.

The shipments afloat from America are estimated at 3300 tons.

Imports.—The arrivals from the West Coast have been as follows:—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
At Swansea—*Nil.*					
At Liverpool—					
Orellana (s) from Valparaiso, &c.	—	25	396	—	—
Sarmiento (s) ,,	120	—	—	—	—
Oropesa (s) ,,	—	53	455	—	—
In France—*Nil.*					
Tons	120	84	851	—	—
Fine	= 912 tons.				

Quotations for West Coast copper are as follows:—

	To-day.	June 18, 1895.	June 19, 1894.	June 17, 1893.	June 17, 1892.
Ores } Regulus }	9/ to 10/	8/7½	7/6	8/9	9/
Bars	£49 5/	£42 7/6	£37 18/9	£44 11/3	£42 12/6
Ingots, Urmeneta	Nom.	Nom.	Nom.	£18 5/	£49 15/
Precipitate	about 9/9 to 10/3	about 9/	about 8/	about 9/	9/6

For other descriptions we quote to-day:—Wallaroo nominal, Burra Burra nominal, Best selected about £54 to £54 10s., English tough about £53 to £53 10s., English manufactured about £60, India Sheets about £56 10s., G.M.B. copper £49 5s. cash and three months.—Sulphate of copper, £19 10s. to £19 cash, £18 to £17 10s. forward.—Tin. Closing at £81 15s. cash, £81 5s. three months.—Spelter. Quiet. £18 to £18 5s. English about £18 7s. 6d. Blende of 50 per cent. is worth about £4 3s. 6d., and Calamine about £4 5s.—Lead. Dull. £10 18s. 9d. to £11. With silver 50 to 80 ounces about £11 5s. to £11 10s. Lead ore of 70 per cent. is worth about £5 per ton.—Pig iron. Closing quotations for Scotch pigs are 46s. 8½d., Middlesbrough 37s. 5½d., hematite 47s. 5d. cash.—Antimony. Quiet. Star regulus about £30. Ore £3 to £3 10s. for 50 per cent. good quality and produce. Crude about £14 per ton.—Quicksilver. Official price reduced to £8 10s. Seconds quiet at 1s. 6d.—Bar silver, 31½d. per ounce standard.—Discount. The Bank rate remains at 2 per cent.

BARRY, HEAD, AND CO.'s weekly report, dated June 19, says:—Recently quoted prices are fully maintained, and, with a slightly firmer tendency, confidence in better things to come remains undiminished.

TIN TICKETING.

THE fortnightly ticketing for tin ores was held at Tabb's Hotel, Redruth, on Tuesday, the following tenders were submitted:—

VALUES OF ORES SOLD FROM EACH MINE.

Mines	Tons cwts.	Per ton. £ s. d.	Value. £ s. d.
Dolcoath No. 1	14 0	38 5 0	535 10 0
do No. 1a	14 0	38 10 0	539 0 0
do No. 1b	12 0	37 12 6	463 10 0
Carn Brea and Tincroft A	18 0	33 15 0	607 10 0
do B	17 0	35 2 6	597 2 0
do No. 2	1 0	19 15 0	19 15 0
Wheal Grenville A	16 0	40 2 6	642 0 0
do B	15 0	39 15 0	596 5 0
do No. 2	4 0	23 2 6	92 10 0
Basset Mine No. 1	10 0	40 7 6	403 15 0
do No. 1a	10 0	40 12 6	406 5 0
East Pool A	8 0	24 12 6	197 0 6
do B	8 0	25 7 6	203 0 0
do No. 2	1 0	11 15 0	11 15 0
West Kitty	13 0	40 12 6	528 2 6
Killifreth	12 0	36 15 0	441 0 0
Wheal Kitty	12 0	40 7 6	484 0 0
Phœnix United	9 0	39 2 6	352 2 6
South Condurrow	6 0	40 2 6	240 15 0
	200		£7361 7 6

AVERAGE PRICE PER TON, £36 16s. 1d.

AVERAGE PRICES PER TON.

May 5	£34 14 10	June 2	£35 4 9
May 19	35 13 9	June 16	36 16 1

VALUE OF ORES PURCHASED BY EACH FIRM.

	Tons.	£ s. d.
Carvedras	39 5-6	1509 10 10
Chyandour	36 0	1367 3 9
Williams	22½ 0	829 0 10
Redruth	19½ 0	664 16 3
Penpoll	20 0	641 0 0
Cornish	62½ 0	2349 15 10
	200	£7361 16 6

MINING SCHOLARSHIPS.—At a meeting of the South Staffordshire and East Worcestershire Institute of Mining Engineers, held recently, the secretary reported that he had received a letter from the Technical Instruction Committee of the Staffordshire County Council, in which it was stated that the committee had decided to offer two mining scholarships, each of the value of £30, to which would be added, at the discretion of the committee, a maintenance allowance.

A PATENT POCKET MINE TRANSIT.

A PATENT pocket mine transit, in aluminium and silver, has been devised by Messrs. Brunton and Pearse, the well-known instrument makers, of 7, St. Mildred's-court, the object of which is to furnish a compact pocket instrument which will be able to perform the work done by the ordinary transit accurately within the limits imposed by its size and construction. The instrument is, by special design, particularly fitted to meet the requirements of mining engineers, managers, and superintendents, but it is also admirably adapted to geological surveys and rough topographical work. From the blocks we are able to publish it will be seen that Fig. 1 (*a*) is a metallic casing; *b* a magnetic needle, mounted in the usual manner and provided with a locking lever (*c*), which projects up from the face of the casing at c^1, so as to be operated by the closing of the lid (*d*); *e* is a degree circle for the compass, divided to single degrees. The lid (*d*) is provided on its inside with a mirror (*f*), in the centre of which is the sight line (*g*), which terminates at its inner end in a sight opening (*h*). The lid is hinged to the casing at *i*, and at the opposite side of the casing is arranged an adustable folding sight (*j*), which is hinged at *k*. The folding sight is provided with a longitudinal slot (*l*), in line with sight line (*g*). The outer end of this folding sight is provided with a hinged piece (*m*), which has a sight opening (*n*), and which can be turned up at right angles to the sight (*j*), as indicated in the full lines in Fig. 2. This hinged and folding sight is of a length sufficient to be folded within the casing and over the glass face (a^1) of such casing. Within the bottom of the casing is arranged a post (*o*), upon which is pivoted an arm (*p*), which is slotted at *p'* to encircle the base of the needle and work around it. This arm (*p*) terminates in a vernier (p^2), which is arranged over an appropriate vernier scale (*q*). The opposite end of this arm is supplied with a bubble tube (*r*). The post (*o*) extends through to the rear side of the casing, and is provided with a crank lever or handle, by means of which the bubble tube and its connected vernier may be adjusted.

Fig. 1.

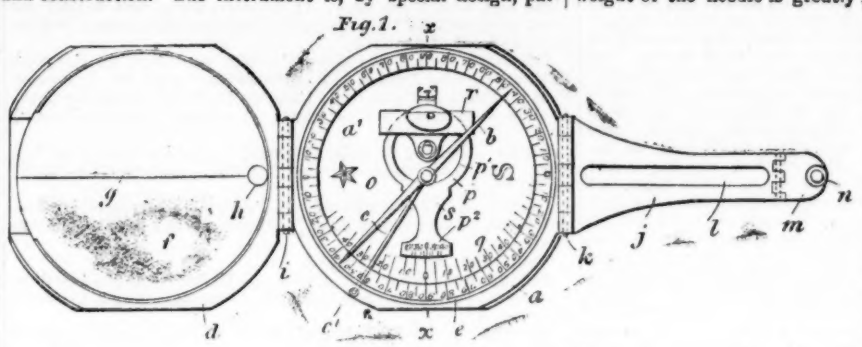
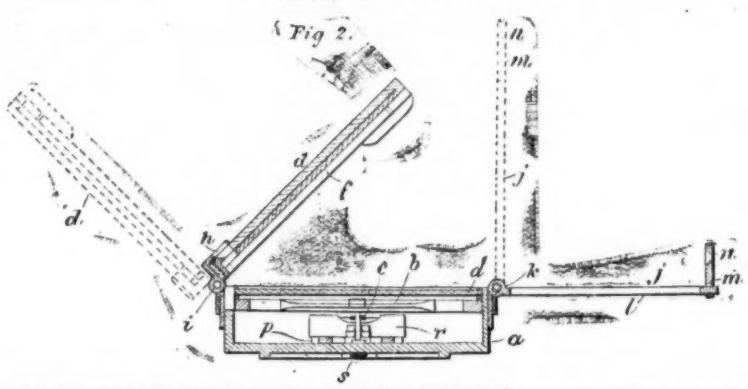


Fig. 2.



For taking horizontal angles, the folding sight (*i*) is placed at right angles with the top of the casing, as indicated in dotted lines in Fig. 2, and the lid (*d*) at an angle of about 135° from the top of the casing, then, holding the instrument firmly in two hands, in a horizontal position, at about the height of the waist, the observer, by looking directly down into the mirror, will see the objects in front of him reflected therein. The instrument may be accurately sighted at any of these objects by bringing it in line with the sight line (*g*), and bisecting the slot (*l*) in the folding sight, keeping the instrument level by means of the needle and the bubble tube, the latter of which should be placed at right angles to the sights; at the same time the needle may be accurately read by the same observer. By varying the position of the lid and the folding sight, courses may be taken to objects at almost any angle above or below the observer. In using the instrument above ground, or in any place where the observer may take a standing position, it is convenient to stand facing the general direction in which courses are to be taken, with the heels together, and placed over the point marking the station. Then, by a movement of the hips, the instrument may be swung through a large angle without changing the position of the feet, thus giving the observer perfect freedom in pointing. Underground, it is often impossible for the observer to take a standing position, and he may then kneel on the right knee, and rest the instrument on the left, levelling and sight as before described.

In taking vertical angles the instrument is held edge up, the lid is set to approximately an angle of 45° with the top of the casing, and the folding sight turned outwardly until it is parallel with the top of the casing; its hinged end (*m*) is then turned out at right angles to the sight, as indicated in the full lines in Fig. 2, and then, by holding the lid or cover by the left hand and the casing between the forefinger and the thumb of the right hand, and placing the end (*m*) close to the eye, so as to look through the opening (*n*), sights can be taken through such an opening and the opening (*h*) in the lid or cover, while at the same time the bubble tube can be plainly seen in the mirror. To measure a vertical angle above or below the horizontal, it is then only necessary to turn the crank (*s*) with the second finger of the right hand, so as to bring the bubble to the centre of the bubble tube, after which the cover may be opened, and the reading taken from the venier circle on the bottom of the casing. Inasmuch as the covering and the casing are of exactly the same width, it is obvious that, when the lid is opened so that it is parallel with the face of the casing, as in Fig. 1, by applying the instrument edgeways to an object it may be used as a clinometer.

The following advantages are claimed for the instrument:—(1st.) Its convenient and portable size, enabling it to be easily carried in the vest pocket. As now made it is 3½ by 3½ by 1½ inches in size when folded. (2nd.) It possesses this advantage over ordinary surveying and pocket compasses, that the sighting and reading can be performed simultaneously, while the instrument is held in the hand without other support. In the ordinary surveying compass it is not possible to take the reading of the needle while looking through the sight at a distant object, so that a tripod or Jacob's staff is necessary—the instrument being first sighted and then the reading taken; and when used as a hand instrument two observers are necessary—one to sight the instrument and the other to take the needle reading. It is true that the prismatic compass admits of simultaneous sighting and reading, but the results obtained are very inaccurate, because:—First, it will take sights only on or near a level with the instrument. Second, the weight of the needle is greatly increased, and its accuracy impaired, by carrying a large circular card; and, third, the prism obscures the light, and only indifferent results can be obtained reading by candle light under ground. (3rd.) The combination in one instrument of means for taking both horizontal and vertical angles, and for obtaining clinometer readings. (4th.) The possibility of taking horizontal angles to objects situated at almost any angle above or below the observer.

Altogether the mine transit may be confidently recommended to the attention of the class for whom it is specially designed.

WESTPHALIAN COAL IN RUSSIA.—Consul Woodhouse, writing from Riga on the trade of 1895, states that for the first time there has been an importation of Westphalian coals, *via* Holland, to the extent of 12,750 tons, against England's 76,150 tons. He continues:—"This is but the thin end of the wedge, and should be guarded against as much as possible, it being an indication of what may be expected. The Westphalian coal is said to be a good steam coal, and well suited for smelting purposes.

STATE OF THE SKILLED LABOUR MARKET.

THE following memorandum has been prepared by the Labour Department of the Board of Trade for the *Board of Trade Journal*, and also (with additions) for the *Labour Gazette*:—The improvement in the state of employment has been maintained during the month in most industries. In the 110 trade unions, with an aggregate membership of 420,594, making returns, 13,883 (or 3·3 per cent.) are reported as unemployed at the end of May, compared with 3·2 per cent. in April, and with 6 per cent. in the 85 unions, with a membership of 387,411, from which returns were received for May, 1895.—Coal Mining; Employment in this industry was considerably better than a year ago. The average number of days worked by 1127 pits, employing 324,374 workpeople, was 4·88 per week, as compared with 4·69 in April (when, however, the average was lessened by the Easter holidays in England and Wales), and 4·57 in May, 1895. The percentage of unemployed miners in trade unions in Northumberland and Durham was only 1·8 at the end of May, compared with 1·9 at the end of April, and 5·2 in May, 1895.—Iron Mining: Practically full time was worked at iron mines in May, except at some places in the Midlands. At the 129 mines included in the returns, employing 16,454 men, an average of 5·76 days per week was worked during May, as compared with 5·74 days in May, 1895. The numbers employed at these mines have increased by about 3 per cent. since May, 1895. In the pig iron industry the state of employment, though considerably better than last year, has fallen off very slightly as compared with April. The ironmasters making returns had 345 furnaces in blast at the end of May, as compared with 346 in April, and 305 in May, 1895. The number of workpeople employed at these furnaces was 30 less than in April, and 1601 more than in May, 1895. Employment at steelworks continues to show a marked improvement as compared with a year ago. At 113 works included in returns received, the number of workpeople employed was 33,768 at the end of May, being 12·5 per cent. more than at the end of May, 1895, and ·3 per cent. more than at the end of April last. At the 89 puddling furnaces and rolling mills from which returns were received, the number employed was less at the end of May than at the end of April, and also less than a year ago, the numbers being: for May, 16,946; for April, 17,695; and for May, 1895, 17,196. The tinplate trade remains unsettled. At the 92 works covered by the returns received, only 41 were giving full employment. Altogether, 289 mills were reported as working at the end of May, as compared with 288 at the end of April. The engineering and kindred trades continue well employed in most branches, the percentage of unemployed union members being 2·2 at the end of May, compared with 2·3 in April, and 6·6 in May, 1895.

TRANSVAAL GOLD OUTPUT FOR 1895.

	Ounces.
Witwatersrand	2,277,635
Klerksdorp	90,841
Lydenburg	63,506
De Kaap	63,046
Zoutpansberg, &c.	10,379
Total 1895	2,505,407
Total 1894	2,265,853
Increase	239,554

NEW GERMAN IRONWORKS IN SOUTH RUSSIA.—A despatch, dated May 30 last, has been received from Mr. G. Strachey, Her Majesty's Minister at Dresden, stating that the spirit of enterprise is now the rule in every department of German industrial activity. As an example of this, the Dresden Bank has lately arranged with the great Chemnitz machinery house (Hartmanns) to open some extensive ironworks at Lugansk, in South Russia. The land is already purchased, and the buildings are well advanced. It is intended to provide foundries with furnaces for the Martini-Siemens process, and there will be a branch for constructing railway apparatus and materials. The locality selected is described as abounding in coal and ores as well as blast furnaces, and as being well supplied with skilled labour. The capital named is 4,000,000 of gold roubles. The International Bank of St. Petersburg and some Berlin houses appear to be concerned in the undertaking. It is said that the new establishment is already provided with orders sufficient to guarantee its full employment for some years.—*Board of Trade Journal*,

The board of the PRINCESS ESTATE AND GOLD MINING COMPANY (LIMITED), has resolved to erect further 10 extra heavy stamps to commence crushing about September 1.

THE GOLD FIELDS OF DUTCH GUIANA.

By A. I. MATHER.

A RAILROAD, in addition to greatly developing improvement in mining, would also facilitate the shipment of the numerous fancy woods for cabinet work. With assistance of a railroad the abandoned coffee, sugar, and cocoa plantations, that may now be purchased at low figures, might again be revived. Banana cultivation can be started there at much lower rates than at other parts in the tropics, where bananas are the chief export. The Governor of Surinam is much in favour of a progressive policy, and will welcome foreign capital if applied legitimately. All investments are safe, as the colony has no debts, all deficits in the revenue being met from the treasury of the home government in Holland. All the highways leading to the gold bush are water routes. The method of travel and transportation are by steamers of light draft, native boats, and "dug outs." On most of the rivers steamers are not able to proceed beyond 100 to 150 miles, on account of the rapids and waterfalls, all of which are passed safely in small boats, by the aid of the native bush negroes, who are expert navigators in these wild waters. The nearest places are about two days from town by steamer (travelling by day only), and from four to seven days in row boats. In the upper Sara Creek, a tributary of the Surinam River, plains are nearly 20 days distant, owing to the number of waterfalls to be passed. All labourers, tools, and supplies are transported in this manner. Provisions are packed in small boxes or tin canisters of about 50 lbs. weight each, to facilitate carriage from the landing place into the mines. A labourer will easily carry one of these boxes on his head all day. Every mining concession has "magazines" on the water side, where all provisions and supplies are stored, to be conveyed into the placers as occasion requires. Supplies are generally taken up into the bush during the rainy season, when the water is high in all the rivers and creeks, as in the extreme dry season navigation is more or less disturbed by the uncovering of rocks and sand bars, which are invisible in the rainy season. All provisions are easily obtainable at Paramimbo at fair prices. American beef, pork, flour, and other staples can be purchased there as cheaply as one could import them. The labourers employed in the mines are the native negroes. Usually indolent, they have to be sharply looked after. The more intelligent negroes, half breeds, and white men are generally the overseers. Wages to labourers are from 40 to 50 cents per day, while the overseers receive from $20 to $40 per month. These figures are based on United States currency values, as the American cent. is equivalent to 2½ Dutch cents. Labourers are supplied with food by the contractors from the time they embark for the mines until they return to town. If they are sick or unable or unwilling to work they receive no pay, but are entitled to their rations, which for one week are as follows:—6 lbs. rice, 2 lbs. flour, 1 lb. split peas, 1½ lb. salt fish, 1 lb. salt pork, 1 lb. salt beef, 1 pint molasses, 3 leaves tobacco. A supply of medicine is required to be kept on the placers for the use of the labourers. The overseers receive a higher grade of fare, and usually mess among themselves, or with the manager. Labourers drawing more rations than the stipulated amount have it deducted from their wages. Refractory men can be dismissed and sent to town at any time. The usual method of reckoning cost of hand labour is $1 per day for each man employed. This is sufficient to pay for all labour, provisions, tools, transportation, overseer's salary, and all incidental expenses in mining gold. These figures are intended to apply to the placers within eight to ten days from town. In the upper Sara Creek district the cost of transportation will be something more. In subsequent letters I will refer to mines in that vicinity, and give full figures, conservatively estimated. The Governor of Surinam grants concessions to any one for a term of not less than one or more than 40 years. The lease of the concession can be renewed on expiration. Land is measured in hectares—a hectare being 24,711 English acres. Any party desiring to prospect Government lands files an application for a certain tract, which must contain not more than 50,000 acres, to be selected from the Government chart. He is furnished with a duplicate copy of his map, and a lease of his possession for one year. For this there is a small fee. The annual tax on the land for the first year is 4 cents per hectare, for the second year the same, for the third and fourth years 10 cents per hectare, and for each ensuing year 20 cents, or, in round numbers, 8 cents per acre. The prospector is then allowed to work his grant. Prospectors are required to make their contracts with labourers before the commissary of police. The Government has established at convenient intervals on the rivers, between the town and gold bush, police posts, where all labourers are required to register on going to and returning from the mines.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (June 18):—The mining share market has hardened a little on the improvement in price of copper and tin; with the satisfactory result of Tuesday's ticketing showing an average advance of 31s. 6d. per ton when compared with the previous fortnightly sale. Quotations:—Basset United, 17s. to 18s. 6d.; ditto (5s. paid), 4s. to 5s.; Carn Brea, 7s. to 8s.; Devon Consols, 19s. to 20s.; Dolcoath, 15s. to 16s.; ditto (7s. 6d. paid), 5s. to 5s. 6d.; East Pool, 2⅝ to 2¾; Killifreth, 6s. to 7s.; Levant, 3¾ to 4; Polberro, 8s. to 9s.; Tincroft, 8s. to 9s.; West Kitty, 1⅝ to 1¾; Wheal Grenville, 6 to 6¼; Wheal Kitty, 2s. 6d. to 3s.; Wheal Metal, 3s. to 3s. 6d.

Messrs. ABBOTT and WICKETT, Stock and Share Brokers and ining Share Dealers, Redruth, write under date of June 18:—The move in tin, although not altogether maintained, has imparted a slightly firmer tone to the Cornish share market. There has been a little more enquiry for some of the leading shares, without, however, much business resulting, as stock at present seems scarce. Quotations herewith:—Blue Hills, 1s. to 2s.; Basset Mines, ⅜ to ½; Carn Brea, ½ to ⅝; Dolcoath (fully paid), 15s. 6d. to 16s. 6d.; ditto (7s. 6d. paid), 5s. to 6s.; East Pool, 2½ to 2⅝; Killifreth, 6s. to 8s.; Polberro, ½ to ⅝; South Crofty, ½ to ⅝; Tincroft, ⅜ to ½; West Kitty, 2 to 2¼; Wheal Grenville, 6¼ to 6¾; Wheal Kitty, 1s. to 2s.; Wheal Metal (3s. paid), 3s. 6d. to 4s.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write June 18 (noon):—Markets during the past week have presented a contradictory appearance, for whilst English rails have been "sagging" from want of attention, Americans and foreigners have been strong, substantial gains being recorded for the former, especially in one or two instances, as will be seen from the list shown hereunder. In foreigners the only adverse changes noted are Spanish and Mexicans 6s., each of which have declined 2. Consols are ⅛ lower, but in Colonial Inscribed issues New South Wales is 1 better. Home Corporation stocks continue in demand, and several further advances are in evidence, ranging from 1 to 2 per cent; Rails are nearly all lower, but the declines in no instance exceed 1, though the tone in these continues very dull, due in some sense, no doubt, to the attention of operators having been drawn to Yankees, which in the case of Milwaukees have risen over $4.

ENGLISH RAILS.—Higher: Great Eastern, 1; York Deferred, ½; Dover A, ⅛.—Lower: Coras, ⅛; Great Western, 1; Lancashire and Yorkshire, ⅜; Chathams, ⅛; Sheffield A, ⅛; Districts, ⅛; Midlands, ⅛; North British, ⅛; Berwicks, ⅛.

AMERICANS AND CANADIANS.—Higher: Atchison, 1⅛; ditto Income Bonds, 2½; Canadian Pacific, 1⅛; Trunk Ordinary, 1-16 to ⅛; ditto Guaranteed, 1; ditto First Preference, 1⅛; ditto Second Preference, ⅜; ditto Third Preference, ⅛ to ¼; Central Pacific, 1⅛; Milwaukees, 4⅜; Denvers, 1; ditto Preference, 2½; Louisvilles, 3½; New York Centrals, 2; Eries, 1½; Ontarios, ⅜; Norfolk Preference, ¾; Readings, 1½; Union Pacifics, 1½.—Lower: Mexican First Preference, ⅛.

CONSOLS.—Lower: Two and Three-quarter per Cent., ⅛.

COLONIAL STOCKS, &C.—Higher: New South Wales Inscribed, 1.—Lower: Victoria Inscribed, ⅛.

CORPORATION STOCKS AND DEBENTURES.—Higher: Bristol Three and a-Ha'f per Cent., 1; Burnley, Three and a-Half per Cent., 2; Newcastle Three and a Half per Cent., 1.—Lower: Bolton, Three and a-Half per Cent, 1.

FOREIGNERS.—Higher: Argentine Six per Cent., ⅛; Egyptian Unified, ⅛; Italian Rentes, ⅛; Portuguese Three per Cent., ⅛; Russian Four per Cent., ⅛; Turks D, ⅜; Uruguay Three and a-Half per Cent., ⅜.—Lower: Mexican Six per Cent., ⅛; Spanish Four per Cent., ⅛ to ⅜.

BANKS.—Higher: Imperial Ottoman, ⅛; London and Midland, ⅛ to ⅜; Manchester and County, ⅛; District, ⅛; Mercantile, 1-16; Parr's, 3 to 4.

INSURANCE.—Higher: British and Foreign, ⅛; Liverpool, London, and Globe, ⅛; Manchester Fire, ⅜; Palatine, 1-16; Royal, ⅜; Union Marine, ⅛.

COAL, IRON, &C.—Unchanged.

TELEGRAPHS AND TELEPHONES.—Higher: Anglo-American Preference, ⅛; Western and Brazilian, ⅛.—Lower: Anglo-American Deferred, ⅛.

BREWERIES.—Higher: Allsopp's, 11⅛ to 12½; Guinness, 40; Hardy's, ⅛; Showell's, ⅛ to ⅜; Threlfalls, ⅛.

MISCELLANEOUS.—Higher: Armitage's, ⅛; Brunner Mond, ⅛; Crosse's, ⅜; Hetherington's, ⅛ to ⅜; Hudson's Bay, ⅛; Kellner Partington, ⅛; Manchester Com. Buildings, ⅛; Northern Assets, 2s.; Ruston Proctor, ⅛; Ryland's, ⅛; Spiers and Pond, 2; West India and Pacific Steam, ⅜.—Lower: Chadwick's, 1 to 1⅛; Eastman's, ⅛; Henry's, 3-16 to 5-16; Howard and Bullough, 2½; Gas Light A, 2.

LATER (4 p.m.)—Home rails have continued quiet all day, the most important move being a drop of ⅛ in Great Western. Americans all lower on realisation, but in this market also changes are only fractional. Canadians and Mexicans neglected.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of June 18:—Since last week's report the railway market has been quiet. Prices have not varied much, but a slight decline is perceptible. Canadians have been firmer. Americans have been more active, and have made a very appreciable advance. In insurance shares, English and Scottish Law have risen 1s. 3d., Scottish Union A 9d., ditto B 6s. 3d. Guardian have advanced from 9 15-16 to 11⅜, Scottish Life from 40s. to 42s. 6d. North British and Mercantile have changed from 38¼ to 37¾, Clydesdale Bank have receded from 21⅛ to 21⅜, Royal from 229 to 228. Union have improved from 22 15-16 to 23. British South African Chartered have been freely dealt in, and have fallen from 82s. 6d. to 71s. 9d. Arisonas have changed from 61s. 6d. to 61s. 3d., Rio Tinto from 23 3-16 to 24⅜, Young's Paraffin from 33s. 3d. to 34s. Distillers have changed from 22¾ to 22½, J. and P. Coats from 55 to 56¼.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(FROM OUR OWN CORRESPONDENT.)

THERE was quite a scare in the Redruth share market on Monday when the tin wire arrived, and while some refused to believe that the poor unfortunate telegraphist had not been up to his pranks again, others were quite willing to believe that the rise of 25s. registered in one market was the beginning of the big rise for which they had been anxiously looking for so long. But it was not the telegraphist, nor did subsequent wires seem to bear out the hopes and prognostications of the optimists, for up to the time of writing succeeding markets had not maintained the advance. The advance has, however, given some hope to those dreary pessimists who are never happy unless they are dilating upon what they are pleased to consider the past glories of Cornish mining. Some of them are beginning to believe what has been told them over and over again by those who should know the prospects of the tin market best—that tin is going to rise, and that the indications are improving with every month. They will probably wait until prices have improved, then begin to buy in their stock of shares, and afterwards complain because they did not buy when shares were at a lower value. It must not be forgotten that with the limited companies which now exist, or are in course of construction, the interest in the mines is spread over a very much larger area, and that when there is again a boom in Cornish mine shares the speculation is likely to be all the greater, because a larger number will desire to try their luck, especially when they know that in buying these shares their liability will now be limited. We do not know that it is possible to pick up any large number of shares even now at present prices, and the general opinion is strongly that the interests in the leading mines are more than ever worth holding.

THAT tedious and disappointing dispute between Wheal Agar and East Pool has been once more on the carpet this week, but, we are glad to say, with much more satisfactory results. The worst is certainly over, and there is no fear of the engines being again stopped. As from the commencement of the dispute, every sort of difficulty seems to have been placed in the way—by whom it is not for us to suggest—and this policy of obstruction would probably have been carried on until now, but for the intervention of Lord Robartes. When the Agar shareholders met on Monday, they found themselves in a dilemma. On the one side the East Pool solicitor would not agree to certain terms in the agreement to arbitrate, and on the other side they knew of the existence of an agreement between East Pool representatives and Lord Robartes, in which his lordship undertook, if Agar shareholders did not pass the necessary resolutions, to exercise his right of pre-emption, which would mean his entering on the property, and taking such machinery as he required at a valuation. A conference between representatives of the two mines took place, as a result of which East Pool gave way on one or two questions in the agreement, and there is now little, if any, doubt but that in the course of a day or two the agreement will be signed, and the arbitrators put to work. Captain Josiah Thomas has been named by East Pool, but the other side has not yet given the name of the gentleman who will act for them, indeed that was one of the points of difference, Agar contending that they should not give the name until after the agreement had been signed.

KILLIFRETH shareholders recently held a special meeting at Portsmouth, where several of them reside, and confirmed the resolutions passed at the last general meeting.

WEST KITTY meeting will be held on the 30th inst., in Cornwall, when we understand that the committee may make proposals for the conversion of the concern into a Limited Liability company. The accounts are likely to give satisfaction to the shareholders, and the mine is looking as well as ever.

COPPER ORES.

Sampled June 3, and sold at Tabb's Hotel, Redruth, June 18.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Levant	134	£3 1 0	Levant	8	£28 0 9
ditto	99	4 6 6	Devon Great Cons'ls	105	2 7 0
ditto	98	4 6 6	ditto	97	2 8 0
ditto	71	4 4 6	ditto	79	2 9 6
ditto	73	4 4 6	Bawden's Ore	68	2 9 6
ditto	69	4 4 6	ditto	51	2 10 6
ditto	68	4 4 6	Tincroft	46	2 6 0
ditto	67	4 4 6	ditto	2	2 9 0
ditto	66	4 4 6	Penberthy's Ore	4	2 8 6

TOTAL PRODUCE.

Mines.	Tons.	Amount.	Mines.	Tons.	Amount.
Levant	750	£2819 4 0	Tincroft	48	£128 7 0
Devon Great Con.	281	675 1 6	Penberby's Ore	4	9 14 0
Bawden's Ore	120	290 17 0			

Average standard ..... £35 7 0 | Average produce 9¼
Average price per ton £3 5 0
Quantity of ore ..... 1203 | Quantity of fine copper 110 tons 12 cwts.
Amount of money £3921 3 6

LAST SALE

Average standard ..... £39 2 0 | Average produce 10⅛

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	193½	£ 655 17 3
P. Grenfell and Sons	237½	1089 13 9
Nevill, Druce, and Co.	183	571 17 0
Williams, Foster, and Co.	184	442 5 6
Elliott's Metal Co.	98	423 17 0
Charles Lambert and Co.	183½	500 10 3
Liverpool Silver and Copper Co.	120½	227 2 9
Total	1203	£3921 3 6

The next sale will be held at Redruth on August 20.

COAL MINES REGULATION ACT.—At Edinburgh on May 21 and 22 William Morton, of Backworth Colliery, passed an examination under the above Act, and obtained a certificate of competency as under manager of mines.

WANTED.

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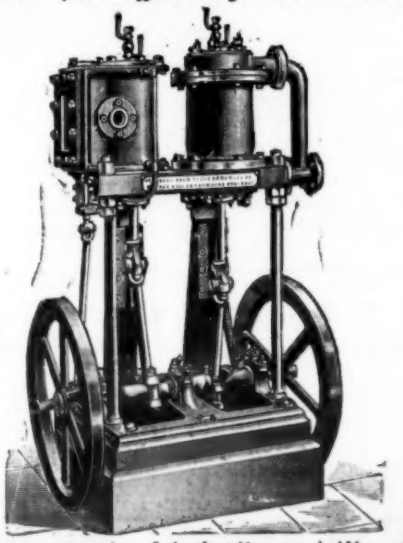

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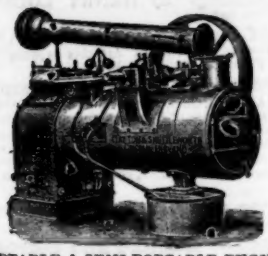

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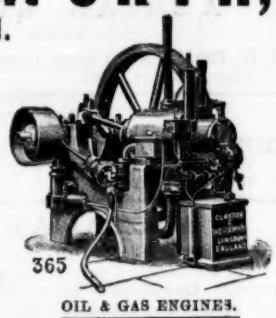

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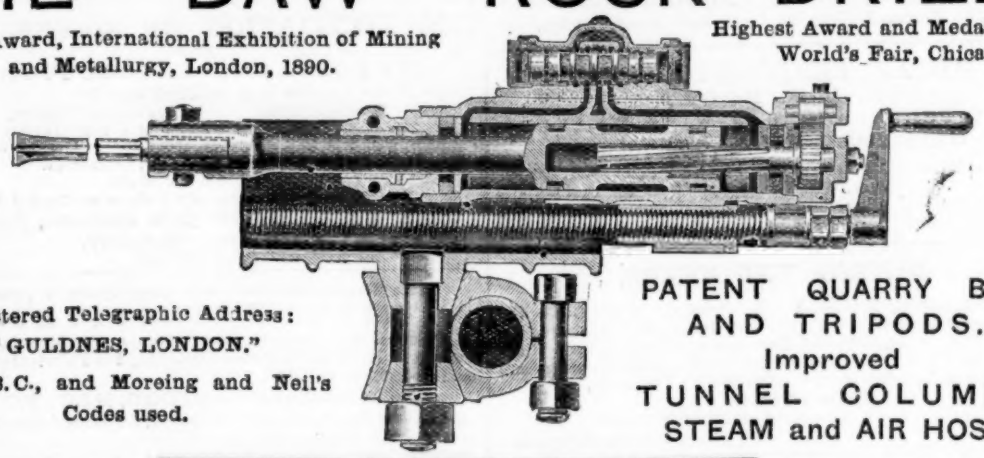

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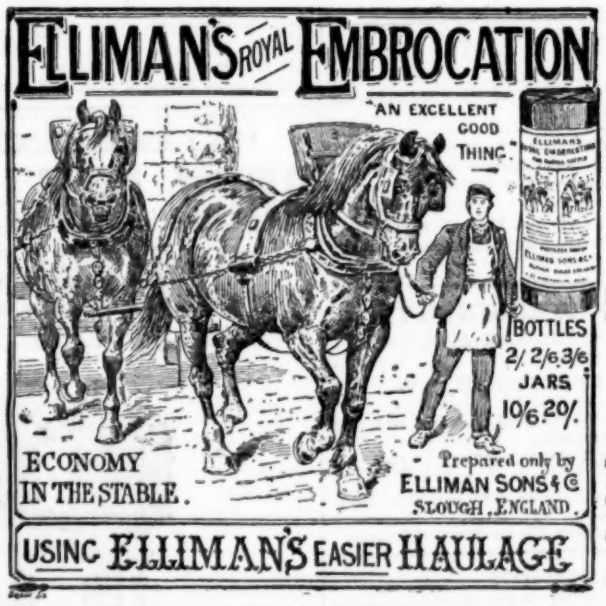

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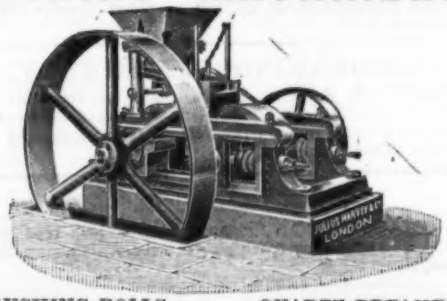

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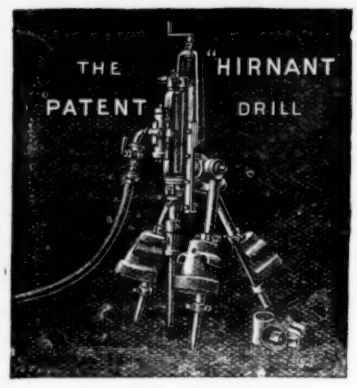

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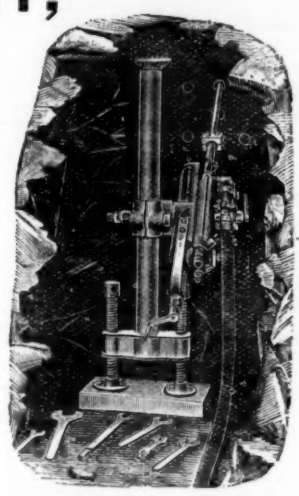

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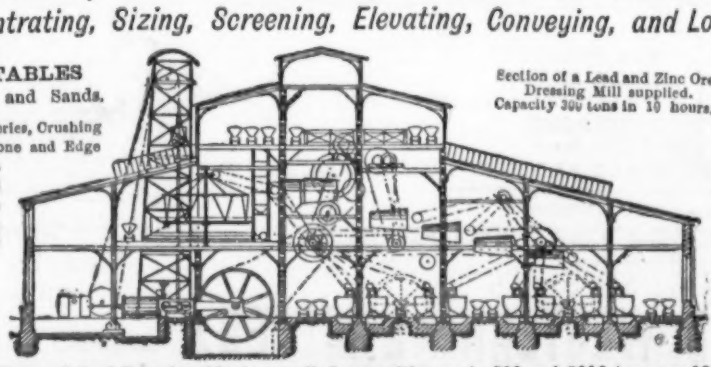

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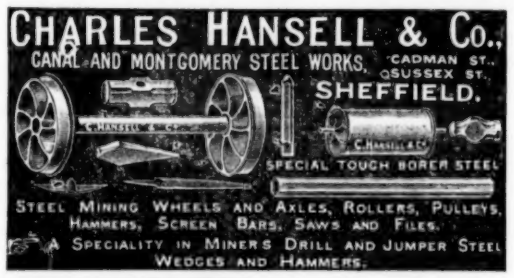

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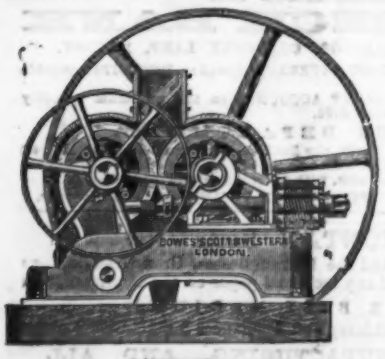

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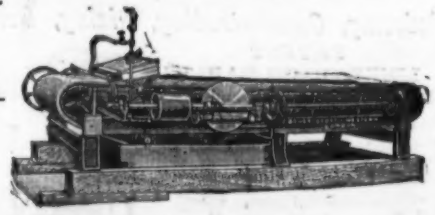

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